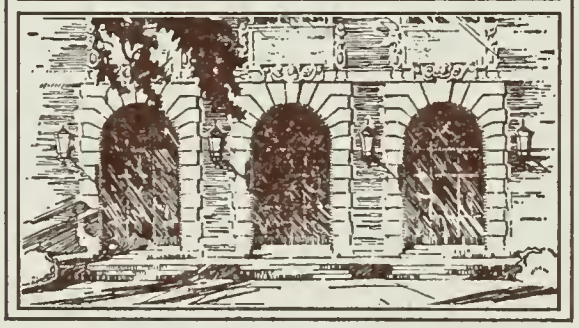

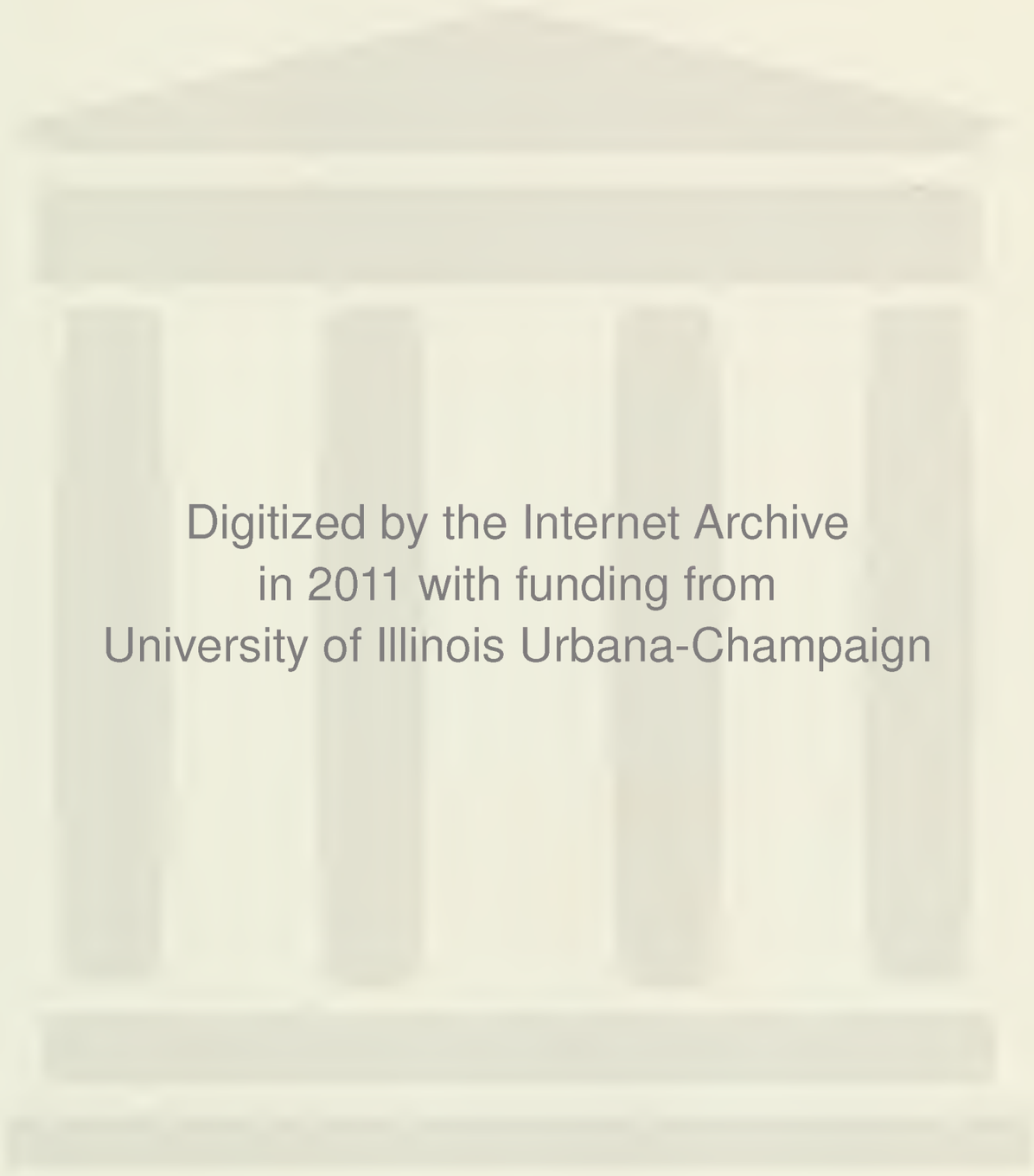

EXCLUSIVE

RELEASES FOR EXTENSION ADVISERS

FROM EXTENSION EDITORS . . . 330 MUMFORD HALL . . . URBANA

FOR IMMEDIATE RELEASE

Special to Extension Advisers, Home Economics

Local Women Attend IHEF Annual Meeting

A delegation of _____ _____ County
(number)

women will attend the annual meeting of the Illinois Homemakers Extension Federation, January 25-26, at the University of Illinois, Urbana.

"Keys to Excellence" is the theme of this year's meeting that opens at 1 p.m. on Thursday in the U. of I. Auditorium.

Dr. Charles Merrill Smith, pastor of the Wesley Methodist Church, Bloomington, will speak at the banquet on the subject "So You Want to Write a Book." Dr. Smith is the author of the best-seller "How to Become a Bishop Without Really Being Religious."

The banquet program also includes entertainment by a group of Grundy County singing homemakers, "The Uniters."

The Friday morning session will be devoted to a series of workshops covering these five program areas: membership, safety, public information, citizenship and recreation, and international programs.

Membership goals will be announced and awards presented during the membership workshop.

Those attending from _____ County are:

(List local delegates.)

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HF:klf
1/5/68

EXCLUSIVE
RELEASES FOR EXTENSION ADVISERS
FROM EXTENSION EDITORS . . . 330 MUMFORD HALL . . . URBANA

U. Of I. Trial Garden
Open House August 4

When planning your Sunday outings, treat your family to the sight of a two-acre flower garden of 1,500 varieties of annuals and bedding plants at their color peak.

_____County Extension Adviser _____ says the University of Illinois has planned a Trial Garden Open House at Urbana, Sunday, August 4, from 10 a.m. to 6 p.m., when specialists will be on hand to answer your gardening questions.

The Trial Garden is one of the most complete displays of annuals in the Midwest. Located near the corner of Florida and Lincoln Avenues, it is maintained by the Division of Floriculture and Ornamental Horticulture for its teaching, research and extension programs.

Among the many versatile flowering annuals that add color to any flower bed, the petunia reigns as the number one plant. And more than 350 varieties will be in bloom, reports _____.

In addition to the petunia varieties, you will see 125 varieties of snapdragons, 100 zinnias, 40 salvias, 35 celosias and many other flowers. This year's garden also includes 15 of the new seed-grown geranium varieties.

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The garden is one of 28 cooperating trial gardens in the All-America Selections program organized by the seed trade for educational and promotional purposes. The All-America Selections are made annually for the most outstanding performance in growth habits, flowering and resistance to disease and insects.

The 1968 winners are included in the display. And all flowers are labeled and planted in rows for easy inspection.

If you cannot attend the open house, you may still have the opportunity to see the Trial Garden any day of the week from dawn to dusk.

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7/18/68

EXCLUSIVE
RELEASES FOR EXTENSION ADVISERS
FROM EXTENSION EDITORS . . . 330 MUMFORD HALL . . . URBANA

FOR IMMEDIATE RELEASE

10th Ag Industries Forum
Slated For Jan. 31-Feb. 1

(County name) County farmers and agribusinessmen will have an opportunity to discuss recent developments in three agricultural areas during the 10th annual Agricultural Industries Forum at the University of Illinois Illini Union, Jan. 31-Feb. 1.

The special-interest sessions feature speakers and panels on grain marketing, agribusiness financing and dairy marketing.

The grain marketing session will look at grain transportation rates of the future and the impact of changes in rail rates on the Illinois grain industry. At the evening banquet, Francis Kutish, staff economist, Office of the Secretary of Agriculture, will describe the "Outlook for Midwest Agriculture."

Financial management tools and credit for the farmer of the 1970s will be the main discussion topics of the agribusiness financing session. Glenn E. Heitz, deputy governor and director, Cooperative Bank Service, Farm Credit Administration, will talk about agricultural financing during the 1970s.

Dairy-marketing session participants will discuss how the fluid milk industry can adjust to meet the competition of imitation milk. They will also hear a report on consumer taste tests of different kinds of sterilized milk and imitation milk and learn of new ways to expand dairy sales.

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General Forum sessions will develop the theme "Managerial Strategies for the '70s." C. E. Bishop, University of North Carolina vice president, will outline strategies for rural development.

J. Peter Grace, W. R. Grace & Co. president, will discuss "Organizational and Operational Strategies." J. A. Hopkin, U. of I. agricultural finance professor, will describe "Financial Strategies for Commercial Agriculture."

A luncheon concludes the conference on Feb. 1. Lyle H. Lanier, U. of I. executive vice president and provost, will explain "Educational Philosophy Underlying Relationships of the University of Illinois to the Industrial Community."

For registration and housing information, write E. L. Sauer, General Chairman, 420 Mumford Hall, University of Illinois, Urbana 61801.

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JTS:klf
12/28/67

FOR IMMEDIATE RELEASE

Ag Industries Forum Offers
Grain Marketing Session

The 10th annual Agricultural Industries Forum, Jan. 31-Feb. 1, offers a special grain marketing session which will be of interest to (county name) County farmers and grain elevator operators.

Sponsored by the University of Illinois Cooperative Extension Service, the two-day conference will be held in the U. of I. Illini Union.

"Grain Transportation Rates of the Future" is the theme of the grain session, reports (your name), (county) County Extension adviser.

On Wednesday afternoon, Jan. 31, Charles Pearson, transportation services branch, U.S. Department of Agriculture, will discuss equitable freight rates for grain. F. A. Mechling, Mechling Barge Lines, Joliet, will describe "Changes in Rates and Technology on the Inland Waterways."

John Ingram, Illinois Central Railroad, Chicago, will comment about the economics of operating multiple car units. Paul Olson, New York Central Railroad, New York, will explain "The Role of Agricultural Marketing Centers in the Grain Industry."

At the Wednesday evening banquet, Francis Kutish, staff economist, Office of the Secretary of Agriculture, will project the "Outlook for Midwest Agriculture."

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A panel Thursday morning will discuss "The Impact of Changes in Rail Rates Upon the Illinois Grain Industry." Panel participants will be L. F. Stice, U. of I. Extension grain marketing economist, moderator; John Anderson, The Andersons, Maumee, Ohio; Benjamin Jaffrey, Cargill, Inc., Chicago; John Troyer, Farmers Grain Co., Chestnut; Newell Wright, Central Soya, Ft. Wayne, Indiana; Carl Lessing, Board of Trade, Chicago; and William Froom, I. H. French and Co., Champaign.

T. A. Hieronymus, U. of I. grain marketing economist, will comment on "Transportation Changes: Effect on Grain Marketing and Pricing."

Agribusiness financing and dairy marketing are the other special-interest sessions scheduled for the forum, __(last name only)__ says.

For registration and housing information, write E. L. Sauer, General Chairman, 420 Mumford Hall, University of Illinois, Urbana 61801.

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JTS:klf
12/28/67

EXCLUSIVE
RELEASES FOR EXTENSION ADVISERS
FROM EXTENSION EDITORS . . . 330 MUMFORD HALL . . . URBANA

FOR IMMEDIATE RELEASE

New Labor Law Limits
Workers 15 And Under

Effective Jan. 1, 1968, a new child labor law prevents youths 15 and under from operating tractors, working around self-unloading machinery and performing other hazardous jobs on a farm.

However, the law does not apply to children working on their parents' farm, points out (your name), (county) County Extension adviser in agriculture.

Vocational agriculture students who have met specific requirements and youth enrolled in supervised training programs may also be excused, he notes.

These jobs are considered hazardous in a farming operation:

1. Handling or applying anhydrous ammonia, certain toxic herbicides, pesticides and fungicides and cleaning equipment used in applying or mixing these chemicals.

2. Handling or using a blasting agent including dynamite, blasting caps, primer cord and black powder.

3. Serving as a flagman for aircraft.

4. Driving a truck, bus or automobile on a public road.

5. Operating, driving or riding on a tractor over 20 belt horsepower or attaching or detaching an implement or power-take-off unit to or from a tractor while the motor is running.

6. Operating or riding on a self-unloading bunk feeder wagon, feeder trailer, forage box wagon or auger trailer or wagon.

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7. Operating or riding on a dump or hoist wagon, fork lift, rotary tiller or power-driven earth-moving or trenching equipment.

8. Operating or unclogging a power-driven combine, hay bailer, hay conditioner, corn picker or forage or vegetable harvester.

9. Operating, feeding or unclogging a stationary baler, thresher, huller, feed grinder, chopper, silo filler or crop dryer.

10. Feeding or unclogging a roughage blower or auger conveyor.

11. Operating a power-driven post-hole digger or post driver.

12. Operating, adjusting or cleaning a power-driven saw.

13. Felling, bucking, skidding, loading or unloading timber with a butt diameter of more than six inches.

14. Working from a ladder or scaffold more than 20 feet high.

15. Working inside a gas-tight fruit, grain or forage enclosure or inside a silo when a top unloading device is in operating position.

16. Working in a yard, pen or stall occupied by a dairy bull, boar or stud horse.

There are still many jobs on a farm that youths can and should do, (last name only) says, but these hazardous jobs are off-limits to youths 15 and under except a farmer's children on his farm.

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JTS:klf
12/28/67

(Advisers Note: If you wish, you may substitute for your name that of O. L. Hogsett, University of Illinois Extension safety

EXCLUSIVE

RELEASES FOR EXTENSION ADVISERS
FROM EXTENSION EDITORS . . . 330 MUMFORD HALL . . . URBANA

FOR IMMEDIATE RELEASE

EDITOR'S NOTE: Use this story as a follow-up report of your county agronomy day. If the subject was not covered at your meeting you may release it at any time.

Agronomist Suggests Ways
To Establish Forage Crops

You can establish alfalfa, clovers and grasses in the spring without a companion crop if you use the herbicide 4,2-4DB to control broad-leaved weeds.

Extension agronomist _____ told those attending the recent _____ County Agronomy Day to apply the herbicide when the weeds are one to two inches high.

The preemergence herbicide Eptam can be used to establish legumes without grass in the mixture. When Eptam is incorporated into the seedbed, it will control broad-leaved weeds and grasses.

Spring seedings without companion crops should be seeded as early as a good seedbed can be prepared, said _____ _____. If you seed in April or early May, the legumes will have time to become well-established and still produce two or three cuttings before mid-September.

If you're establishing alfalfa in spring oats, _____ _____ suggested seeding a late-maturing oat variety at 2 to 2 1/2 bushels per acre. You'll get the best seeding if you harvest the oats as forage when they are in the heading stage.

-more-

Agronomist Suggests Way - 2

And _____ pointed out that late-maturing oat varieties usually produce more oat forage than the earlier-maturing varieties.

Forage mixtures that contain alfalfa, red clover and grasses will yield about the same as alfalfa-grass mixtures if red clover makes up no more than one-third of the legume part of the mix. Seeding more red clover results in lower yields, _____ said, especially after the second hay-production year.

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DD:klf
1/4/68

FOR IMMEDIATE RELEASE

Tax Guide Available
To Illinois Farmers

Illinois farmers may obtain free copies of the 1968 Farmers' Tax Guide from their county agricultural Extension advisers.

"The guide explains in everyday language how to prepare and file income tax returns," reports (your name), (county) County Extension adviser. "It also contains illustrated examples which apply to actual farming situations and sample returns keyed to text explanations."

The guide provides a list of important dates to remember for filing tax returns, such as when social security taxes are due.

The 1968 Farmers' Tax Guide, which emphasizes the importance of good records in filing a proper return, is prepared by the U.S. Treasury Department's Internal Revenue Service with the advice and assistance of the Federal Extension Service, (last name only) says.

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JTS:klf
1/4/68

FOR IMMEDIATE RELEASE

Ag Industries Forum Offers
Dairy Marketing Session

Dairy marketing sessions at the 10th annual Agricultural Industries Forum at the University of Illinois, Urbana, will highlight the theme "How Can the Fluid Milk Industry Adjust to Meet the Competition of Imitation Milk?"

Scheduled for the afternoon and evening of Jan. 31 and the morning of Feb. 1, the sessions feature many speakers and panelists from the nation's dairy industry, reports (your name), (county) County agricultural Extension adviser.

Howard Haynes, labor representative, Louisville, Ky., will discuss "Labor's Responsibility in a Changing Dairy Industry."

R. W. Bartlett, U. of I. agricultural economist, will speak about "Imitation Milk and Fresh Whole Milk: Cost Differences." Also on the Wednesday afternoon program will be Keith Young, president of Jere Dairy, Grand Prairie, Tex., who will describe "Expanding Milk Sales Through Gas Stations and Small Stores."

George Cope, manager, Grocers' Dairies, Grand Rapids, Mich., will explain "Efficient Merchandising of Milk Through Supermarkets."

Wednesday evening, Jan. 31, G. A. Quackenbush, dairy marketing director, American Dairy Association, will describe "What the American Dairy Association Is Doing to Help the Fluid Milk Industry Meet the Competition of Imitation Milk."

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J. W. Gruebele, U. of I. agricultural economist, will discuss imitation milk, negotiated premiums and unnecessary surpluses. Howard Haynes will point out "Lessons Cooperatives Can Learn From Labor About Collective Bargaining."

Thursday, Feb. 1, F. M. Johnson, Dole Engineering Co., Rockford, will give a report on consumer taste tests of sterilized and imitation milk. Emerson Babb, Purdue University agricultural economist, Lafayette, Ind., will explain the "Use of Electronic Computers in Distribution Cost Analysis."

Dairy marketing session participants also will hear and discuss new ways of expanding dairy sales.

For housing and registration information on the dairy marketing session of the 10th annual Agricultural Industries Forum, call or write the county Extension adviser, _____ (name and complete address) _____.

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JTS:klf
1/4/68

FOR IMMEDIATE RELEASE

Ag Industries Forum Features
Agribusiness Financing Section

Agribusiness financing sessions at the University of Illinois' 10th annual Agricultural Industries Forum, Jan. 31-Feb. 1, will focus attention of financial management tools and credit for the farmer of the 1970s.

Sponsored by the University of Illinois Cooperative Extension Service, the two-day conference will be held in the U. of I. Illini Union, reports (your name), (county) County Extension adviser.

On Wednesday afternoon, Jan. 31, Bernard Everett, Deere and Co., Moline, will describe the "Farmer of the '70s." James C. Thomson, editor, PRAIRIE FARMER, will explain "Getting Information to Solve Credit Problems."

B. L. Hauenstein, First National Bank, Chicago, will discuss "Who Will Provide the Credit During the 1970s."

A panel will discuss "Our Role in Providing Agricultural Credit." Panelists include P. A. Mack, Harris Trust and Savings Bank, Chicago; T. R. McGuire, Federal Intermediate Credit Bank, St. Louis; D. J. Stein, Monsanto Co., St. Louis; and T. M. Rochford, Bank of Illinois, Champaign.

Glenn E. Heitz, deputy governor and director, Cooperative Bank Service, Farm Credit Administration, will talk about agricultural financing during the 1970s at an evening banquet.

At the Thursday morning session, J. M. Holcomb, U. of I. agricultural finance specialist, will discuss budgets and cash flows. B. A. Henry, Farm Bureau Farm Management fieldman, and George Meharry, Tolono farmer, will talk about budgets.

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C. B. Baker, U. of I. agricultural economist, will describe the principles of economics.

A panel discussion on financial management tools will be moderated by J. M. Holcomb. Panelists will be J. A. Hopkin, R. P. Kesler and C. B. Baker. All four are U. of I. agricultural economists.

For housing and registration information, contact

(name, title and address) .

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JTS:klf
1/4/67

EXCLUSIVE
RELEASES FOR EXTENSION ADVISERS
FROM EXTENSION EDITORS . . . 330 MUMFORD HALL . . . URBANA

FOR IMMEDIATE RELEASE

Special to Extension Advisers, Agriculture

SWINE SEMINAR PROMOTION

U. Of I. Swine Seminar Features
Latest Hog Research, Information

Area hog farmers who attend the University of Illinois Swine Seminar ___(date)___ in ___(town)___ will get information on modern hog production and research. (NOTE: For dates and places, see list at the end of this story.)

Registration for the Seminar starts at 9:30 a.m. at ___(place)___, ___(address)___, and the program begins at 10 a.m. There is no registration fee.

Here's a preview of what U. of I. Extension specialists will discuss at the seminars:

Swine specialist Dick Carlisle will review the recent research that shows no link between alfalfa meal in bred-sow rations and occurrences of the metritis-mastitis-agalactia (MMA) syndrome. Other topics he will discuss include protein needs of bred sows, feeding high-lysine corn, hormones in finishing hog rations, liquid feeding of finishing hogs and buildings and management research.

Agricultural engineer Art Muehling says slotted floors save farmers more labor during the farrowing operation than in any other phase of confinement hog production.

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Concrete, steel and wood slats are suitable for use in farrowing houses. But three- to four-inch concrete slats, spaced three-eighths inch apart, last longer than steel or wood slats. And farmers can buy forms for casting concrete slats in place.

Muehling will also talk about insulating and ventilating swine buildings, partially and totally slotted floors, feed handling and manure disposal.

Veterinarian Neil Becker estimates that at least 4 percent of all pigs farrowed die from scours. He believes that pork producers place too much emphasis on medicated treatments of baby pigs for scours and too little emphasis on good sow and farrowing sanitation, the best scours prevention measure.

Good sanitation holds bacterial buildup to a minimum. Organisms causing scours quickly become resistant to antibiotics, especially the tetracyclines and streptomycin.

Becker will explain the final phases of the cholera eradication program and discuss control of other swine diseases and internal parasites.

Farm management economist Bob Schwart says the major indications of a good economic outlook for Illinois hog production include (1) a growing population, (2) favorable production costs and hog prices and (3) lower capital costs and fewer risks than other livestock enterprises.

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Only when hog prices are relatively high do labor returns from hogs compare favorably with returns from corn and soybeans, Schwart points out. For profitable production, hog farmers must develop a high level of production efficiency. Schwart will also speak on patterns of hog production and marketing and economic decisions that hog farmers must make.

Following are dates and locations of the Seminars:

Jan. 30--Public School, Grand Chain

Jan. 31--National Stockyards Auction Arena, East St. Louis

Feb. 1--Community Building, Benton

Feb. 2--Ramada Inn, Effingham

Feb. 6--Emerald Hills Country Club, Sterling

Feb. 7--Farm Bureau Auditorium, DeKalb

Feb. 8--Redwood Inn, Rantoul

Feb. 13--Heritage House, Springfield

Feb. 14--Black Hawk Motel, Jacksonville

Feb. 15--Farm Bureau Auditorium, Pittsfield

Feb. 16--Monmouth College, Monmouth

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GAR:klf
1/13/68

FOR IMMEDIATE RELEASE

EDP Enhances Farm Business

Accurate records will help you make sound decisions and take intelligent action in your farming operation, reports D. F. Wilken, University of Illinois Extension farm management specialist.

And by using a farm account book for day-by-day entries or by using electronic data processing (EDP), you can keep accurate farm records.

Lending and management institutions will have three levels of EDP farm accounting services for farmers in the future:

1. EDP bookkeeping service. This service probably won't progress beyond the income tax and financial record keeping of a farm business.

2. EDP services and fieldman. A professional farm management fieldman using EDP provides a total farm business and enterprise analysis. Fieldmen may serve as both accountant and management consultant to the farm operator.

3. Farm planning and budgeting. Although many farm management associations now provide planning and budgeting assistance, EDP records could relieve fieldmen and farmers of much of the paper work involved in farm planning.

Before purchasing farm accounting services, Wilken suggests considering these questions:

1. Is it simple? Some services have built-in data-processing programs which are of little or no benefit to your operation.

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2. What is the cost? Balance costs incurred with benefits received to see if the service is economical.

3. Is it flexible? Must you conform to the system or will the system conform to your needs? Some electronic accounting services have flexible codes allowing you to enter many items while other systems allow for no code variations.

4. Is it what you want? Most record-keeping systems provide monthly, quarterly or semiannual balance and cash-flow statements. They also provide totals to make figuring and filing income taxes easier. Many maintain depreciation schedules for year-end use.

Accurate records are valuable in the efficient management of your farm; they provide a basis for analyzing your business and credit needs. Good records help you plan, keep a close check on your farming operation and make adjustments as new conditions arise, Wilken says.

Before purchasing any EDP system, assess your farm bookkeeping needs and then decide if the farm accounting service is best for you and your operation, he advises.

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JTS:klf
1/11/68

FOR IMMEDIATE RELEASE

Claim Gas-Tax Refunds
On Income Tax Return

(County name) County farmers should claim Federal excise taxes paid on gasoline and lubricating oil used in their farming operation.

Claim the 1967 tax credit--four cents on each gallon of gasoline and six cents on each gallon of oil--on line 19 of Form 1040, reminds F. M. Sims, University of Illinois Extension farm management specialist.

To Form 1040, attach a statement or Form 4136 to show how you computed the gas and oil credit. If the credit exceeds the amount of income tax owed in 1967, the Internal Revenue Service will refund the excess credit.

Two IRS publications offer more information on claiming gas and oil tax credits: No. 308 "Farmer's Gas Tax Credit" and No. 378 "Federal Gas Tax Credit or Refund for Non-Highway and Transit Users." Both publications are free at local IRS offices, Sims reports.

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JTS:klf
1/11/68

EXCLUSIVE
RELEASES FOR EXTENSION ADVISERS
FROM EXTENSION EDITORS . . . 330 MUMFORD HALL . . . URBANA

FOR IMMEDIATE RELEASE

Special to Extension Advisers, Agriculture

Note to Extension Advisers: This release has been sent to Prairie Farmer for possible use in the January 20 issue. You may want to use all or part of the material in your county information program.

Dates Announced For Filing Income Taxes

The time to pay taxes used to come once a year--right after Jan. 1--but tax times have changed.

Farmers now have several tax dates to circle on their calendars, reports F. M. Sims, University of Illinois Extension farm management specialist. The Internal Revenue Service classifies a taxpayer as a farmer if two-thirds of his gross income is derived from the business of farming.

By remembering to file on the correct dates, you will lessen the chance of an audit. If you do need extra time to file your return, apply in a special letter or on Form 2688. Make your request early, Sims suggests, so that if it is refused, you can still file your return on time.

Send the request to the District Director in the IRS district where you normally file your return. The two districts in Illinois are Chicago (60602) and Springfield (62704).

The tax-filing dates apply if you file on a calendar year basis and on either a cash or accrual basis. But if you file on a fiscal year basis (not necessarily the same as a calendar year) you must meet certain other tax-filing dates.

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The dates are listed in the 1968 Farmer's Tax Guide. Obtain free tax guides from your county agricultural Extension adviser or from your local IRS office, Sims recommends.

Here are several important tax-filing dates for 1968:

January 15--If you did not file a "Declaration of Estimated Income Tax," commonly called an "estimate," by this date, then you must file your final return and pay the tax due by Feb. 15. If you did file an income estimate, then you have until April 15 to file your final 1967 income tax return and pay the tax balance.

Use Form 1040-ES for filing your estimated 1967 income and self-employment taxes.

January 31--File Form 943 and pay the Social Security taxes on wages paid to laborers hired during 1967. However, if Social Security taxes have been timely deposited during 1967, then on Feb. 12, file Form 943 with Forms 450 attached.

Send Form 943, Copy A of Form W-2 and the reconciliation Form W-3 to your IRS District Director. Give Copies B and C of Form W-2 to each employee listed on Form 943. Keep Copy D for your files.

If an employee's wages are $600 or less, you can use Form SS-14 or a written statement containing Social Security wage and tax information instead of the W-2 form.

February 12--If you made timely deposits of Social Security taxes during 1967 on Forms 450, file Forms 943 and 450 with your IRS District Director.

February 15--If you did not file an income estimate on Jan. 15, file your final 1967 federal income tax return and pay the tax due. Use Form 1040, Schedules F and F-1 and any other necessary schedules.

Also, deposit with an authorized commercial bank or Federal Reserve Bank Social Security taxes deducted from cash wages paid to hired laborers and other farm employees.

When the amount of Social Security taxes exceeds $100 (the amount you deduct from employees' wages plus the amount you as an employer are required to contribute), make a deposit to the bank on or before the 15th of the next month. Use Form 450 to make deposits.

If both your employees' and your contribution of Social Security tax does not total $100 in a one-month period, hold the amount. When it does total $100, deposit it on or before the 15th of the next month. Then start another accumulation until the total again exceeds $100.

If at the end of November the amount of undeposited tax does not exceed $100, make no deposit in December but pay the entire amount before Jan. 31 of the next year.

February 29--Report payments of $600 or more made to a taxpayer (other than a corporation) during 1967 for farm-business rent or interest. Use Form 1099. Give one copy to the person to whom you paid the farm-business rent or interest.

Attach another copy of Form 1099 to Form 1096 (a summary) and file with IRS Service Center, 2306 East Bannister Road, Kansas City, Mo. 64170.

March 15--Use Form 1120 to file 1967 farm corporation income tax return. Pay at least 50 percent of the tax due when you file the return. Give payments and Form 503 to a Federal depository. Use Form 7004 to make application for time extensions.

April 15--If you filed a Declaration of Estimated Income Tax on Jan. 15, file your final income tax return and pay any tax balance due. Use Form 1040, Schedules F and F-1 and other necessary schedules.

Complete Schedule SE (part of Schedule F-1) to insure your receiving proper Social Security credit for your self-employment income.

If you have a tax refund coming, mail Form 1040 directly to the IRS Service Center in Kansas City, Mo.

If you are part of a farm partnership, use Form 1065 to report partnership income. Use Form 1040 to report your part of the income.

June 17--If you own shares in a farm corporation, the balance of the corporation's 1967 tax liability is due. Fifty percent of the tax was paid by March 15.

The 15th of May, July, August, October and November, and the 16th of September and December are important Social Security depository dates. See Feb. 15.

If any tax-filing or depository dates fall on a Saturday, Sunday or legal holiday, the due date is deferred to the following work day.

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JTS:klf
1/11/68

EXCLUSIVE
RELEASES FOR EXTENSION ADVISERS
FROM EXTENSION EDITORS . . . 330 MUMFORD HALL . . . URBANA

FOR IMMEDIATE RELEASE

Special to Extension Advisers, Agriculture

Slife Describes Soil's
Effect On Herbicides

Soil characteristics influence the effectiveness of soil-applied herbicides. And the amount of rainfall that follows herbicide applications can increase or change the effects of soil characteristics.

University of Illinois agronomist Fred W. Slife reported at the recent Custom Spray Operators' Training School that the more water-soluble herbicides leach more readily than the less-soluble herbicides.

But he pointed out that organic matter and clay content also affect the soil's ability to hold or bind the herbicide.

Slife said, "It's difficult to study the influence of organic matter and clay content because they often occur together. Soils high in organic matter are generally high in clay content. And soils low in organic matter are generally low in clay content."

Slife believes it is not critical to know the exact organic matter content of each field, but it is important to know the general organic matter level.

By knowing the organic matter level of a particular field, however, you can sometimes improve the effectiveness of a herbicide by adjusting the application rate.

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For example, Treflan performs well on sandy soils--which are relatively low in organic matter--when applied at a rate of one-half pound per acre. But on soils containing higher levels of organic matter, best results occur when you increase the application rate to three-fourths pound per acre.

"The increased Treflan rate offsets the increased absorbing capacity of the soil," Slife explained. And he added that Atrazine performs in a similar way.

Randox, however, leaches so readily that when it's used on soils with low organic matter content, rainfall frequently dilutes the chemicals and little weed control results.

Slife illustrated how the relationship between soil characteristics and rainfall affects herbicide performance. Atrazine applied at a one-pound rate on a sandy soil usually controls weeds satisfactorily when normal amounts of rainfall follow. Heavy rains, however, may dilute the Atrazine so that control is not satisfactory.

Atrazine at a four-pound rate usually gives excellent control during heavy rain periods. But under normal conditions, control may be variable.

Slife suggested using combinations of chemicals to modify the effect soil characteristics have on herbicide combinations. On soils with high organic matter, Ramrod plus Atrazine may be more effective than Atrazine alone.

Incorporating low-volatile herbicides may improve their performance, he added.

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"Herbicide users should try several different treatments when they are available. An accurate year-by-year record of rainfall occurring during the weeks after application will also help herbicide users select the best herbicide for their soils and weed problems," Slife concluded.

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DD:klf
1/25/68

FOR IMMEDIATE RELEASE

Farm Casualties Compare
With Vietnam War Losses

Last year, the number of Americans who died each day in Vietnam combat totaled only four more than the number killed in U.S. farm accidents, reports O. L. Hogsett, University of Illinois Extension safety specialist.

A recent newspaper report revealed that 26 Americans were killed and 170 wounded every day last year in Vietnam. The National Safety Council reports that 22 farmers were killed and approximately 2,000 were wounded every day last year on America's farms.

To reduce the number of farm accidents, Hogsett offers these simple safety rules:

1. Reduce tractor speeds. Speed, the No. 1 cause of tractor accidents, resulted in 1,000 farm deaths last year.

2. Stop machinery before unclogging, oiling or adjusting it. Keep all machine guards and safety devices in place.

3. Don't wear loose, floppy clothes around machinery.

4. Start your tractor smoothly and turn corners slowly. Stay away from ditch banks and soft ground. Hitch pull-type equipment only to the tractor's drawbar.

5. Know and obey all traffic laws. Stop when you get fatigued or sleepy.

6. Speak to animals when you approach them. Keep them calm by being calm yourself.

-more-

7. Keep bulls in safe, strong bull pens. Never handle them unless they are properly restrained.

8. Exercise caution around livestock with new young.

9. Don't smoke around barns.

10. Don't use kerosene or gasoline to start fires.

11. Use the right tool for a job. Make sure all tools are in good condition.

12. Keep your back straight, and lift heavy loads with your leg muscles.

13. Give prompt attention to all injuries--even minor ones.

14. Keep children away from machinery. Never permit anyone to ride on a tractor except for the operator.

JTS:klf
1/25/68

FOR IMMEDIATE RELEASE

NOTE TO ADVISERS: There are two sets of statistics for this release--one for the northern portion of the state and one for the southern portion.

What Type Of Farming
Pays Biggest Returns?

Many farmers ask, "Which farming enterprises pay the biggest returns?"

"There is no simple answer," says (your name), (county) County agricultural Extension adviser.

"Furthermore, the answer is not the same each year.

"Perhaps the best reply would be 'the type of farming you like to do best'--IF it makes you money," he says.

Analysis of the Illinois Farm Business Records at the University of Illinois over a five-year period, 1962-66, provides some averages for the (northern, southern) part of the state. But whether these figures would be correct for every individual in every county is a different story, he cautions.

(Insert statistics applicable for your area of the state. See following page.)

Each year several hundred more farmers join the more than 6,700 now enrolled in the farm management analysis program, sponsored by the U. of I. Cooperative Extension Service and the Illinois Farm Bureau Farm Management Association.

The analysis program offers one of the most complete farm record systems available to Illinois farmers, _____ (last name only) says. FBFM fieldmen, Extension advisers and U. of I. Extension farm management specialists have information on how you can benefit from the farm management analysis program.

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INSERT

N O R T H E R N

Record analysis shows that hog farmers with 320 acres earned an average of 9.1 percent on their investment during the five-year period and an average unpaid labor income of $9,748.

Grain farmers with 320 acres averaged 6.6 percent return on their investment and had $7,407 in unpaid labor income.

Beef raisers received a six percent return on investment and $6,538 average unpaid labor income. Dairy farmers returned 5.8 percent on investment and totaled $6,286 on unpaid labor income.

S O U T H E R N

Record analysis shows that hog farmers with 320 acres earned an average of 11.5 percent on their investment during the five-year period and an average unpaid labor income of $8,936.

Cash grain farmers received a 9.3 percent return on investment and $6,890 average unpaid labor income. Dairy farmers returned 8.5 percent on investment and totaled $6,941 on unpaid labor income.

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JTS:klf
1/25/68

FOR IMMEDIATE RELEASE

Special to Extension Advisers, Agriculture

Aim For Shoots--Not Roots--
When Placing Herbicides

University of Illinois agronomy research indicates that placing herbicides in the "shoot" zone--rather than the "root" zone--may improve herbicide effectiveness.

At the 20th Annual Custom Spray Operators' Training School, Extension agronomist Ellery Knake reported on studies testing herbicides on giant foxtail. He said that all 11 herbicides tested produced more effective control when placed in the shoot zone rather than in the root zone. And the herbicides were equally as effective as they were when placed in the seed zone.

Knake defined the plant shoot as any part of the plant above the seed.

The studies are part of an attempt to learn the most "effective site of uptake" of herbicides by a plant--or the part of the plant that contacts or absorbs the herbicide sufficiently to cause lethal effects, said Knake.

Herbicides may be absorbed at several places by the plant, but uptake at some sites does not cause lethal effects.

For example, an herbicide absorbed by the roots may be degraded before it reaches the site of lethal activity. Or an herbicide may be absorbed by the primary roots, causing them to function poorly. If secondary roots develop, the plant can continue to grow.

-more-

"For an herbicide to be most effective, it must kill the plant tops," Knake said.

The studies suggest that present preemergence herbicides probably do not need to be placed deep. Instead, they should be placed rather shallow, where they can be absorbed by the emerging shoot. With its undeveloped cuticle, the emerging shoot is apparently easily affected by soil applied herbicides.

The effectiveness of the shoot zone as a site of herbicide uptake helps explain how moisture and rainfall influence the way herbicides work.

Too much emphasis has been placed on rainfall and not enough has been given to soil moisture, Knake suggested.

He said farmers have depended on rainfall to move the herbicide into the soil and "activate" it. But herbicides are chemically "active" when applied, and they don't need to be chemically or physically changed to control weeds.

Rainfall does move the herbicide into the soil. And if the correct amount of rainfall occurs, the herbicide moves into the shoot zone where it works most effectively.

But when rainfall is too heavy, the herbicide may move through the shoot zone and into the zone where it is less effective.

"Perhaps we need rainfall only to provide soil moisture so the plant can absorb the herbicide," Knake said. "We know we can physically position some herbicides in the soil instead of depending on rainfall."

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Knake said that incorporating some herbicides into moist soil does reduce surface losses and cause those herbicides to perform more satisfactorily. But a dilution effect occurs as incorporation depth increases.

"If the herbicide is most effective in the shoot zone, it seems logical to keep the herbicide shallow and concentrated where the emerging shoot contacts it," he said.

But if conditions are relatively dry, Knake concluded, the benefits from incorporating the herbicide into moist soil may mask the dilution effect caused by incorporation depth.

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1/25/68

FOR IMMEDIATE RELEASE

Special to Extension Advisers, Agriculture

4-H, FFA Dairy Calf Sale Set
For February 24 At U. Of I.

Area 4-H and FFA members will have the chance to buy first-rate dairy animals for their projects at the 20th annual 4-H and FFA Dairy Calf Sale, which starts at 11 a.m. February 24 in the University of Illinois Stock Pavilion, Urbana.

The Illinois Purebred Dairy Cattle Association sponsors the annual sale.

About 55 calves will be sold. Quotas by breeds include 22 Holstein, 15 Guernsey, 7 Jersey, 5 Brown Swiss, 5 Ayrshire and 4 Milking Shorthorn calves.

U. of I. Extension dairy scientist Jerry Cash says that only 4-H and FFA members are eligible to buy calves. But if a member can't attend, he may designate another person to buy an animal for him. Cash reminds prospective buyers to bring their checkbooks because counter checks won't be accepted.

All purchasers must certify that they will use the calves for 4-H or FFA dairy projects. Interested persons can get sale catalogs from _____ County Extension adviser (name), (address), from vocational agriculture instructors or from J. G. Cash, Department of Dairy Science, University of Illinois, Urbana 61801.

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1/25/68

FOR IMMEDIATE RELEASE

Prepare For 1968
Emergencies Now

URBANA--"How prepared are you for man-made or natural emergencies which may occur during 1968?" asks Fred Painter, University of Illinois Extension rural civil defense leader.

Disasters are sure to occur in some parts of Illinois this year. And to minimize the inconvenience of a disaster there are many things you and your family can do.

Painter suggests these ways to prepare for emergencies:

--Keep a well-stocked pantry.

--Maintain adequate supplies of fresh, bottled water.

--Know first aid and how to apply it. Disasters often mean injuries and sickness without available emergency help. Keep first aid kits in central locations known to all members of your family.

The time to prepare for a disaster is before the disaster strikes, Painter says. Contact your county Extension office for publications on planning and preparing for emergencies.

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1/25/68

EXCLUSIVE
RELEASES FOR EXTENSION ADVISERS
FROM EXTENSION EDITORS . . . 330 MUMFORD HALL . . . URBANA

FOR IMMEDIATE RELEASE

Editors Note: For use in the northern half (or north of Highway 36) of Illinois where resistant rootworms are likely to be a problem.

Resistant Rootworms--
Have You Got Them?

"_____ County farmers ask how they can tell if they've got resistant rootworms on their farm," says _____ County Extension Adviser_____ _____.

"All I can tell them is that if they used aldrin or heptachlor last year and found at least five beetles per plant on the stalks during August, they've got them.

"Or if they noticed small spots of lodged corn with root damage, they've got them."

If you're growing continuous corn three years or more in a row, have used chlorinated hydrocarbons regularly and have had green beetles present in August, you should treat for resistant rootworms, _____ says.

Crop rotations and early planting help control rootworm populations. While no rootworm-tolerant corn variety exists, well-rooted varieties suffer less intense feeding damage.

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_____ says no single insecticide will control rootworms on all planting dates. He suggests the following control programs:

--To control larval feeding on the roots of late-planted corn, apply dyfonate, phorate, BUX ten or diazinon granules in a seven-inch band ahead of the press wheel.

--To control rootworms on mid-season plantings, use phorate, BUX ten or dyfonate at planting time.

--To control rootworms on early plantings, make a basal application of phorate, diazinon or disulfoton granules during cultivation. Use an applicator on the cultivator to direct the granules to the base of the plant.

_____ says timing is more important than the material used when controlling beetles feeding on silks in late July and August. Control applications will be profitable if made when there are 5 to 10 adults per ear and if no more than 50 percent of the plants have silked.

_____ suggests using carbaryl (Sevin), malathion, diazinon or parathion.

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2/8/68

FOR IMMEDIATE RELEASE

Special to Extension Advisers

Graffis Suggests Guides
For High Oat Yields

"Plant an adapted oat variety and use quality seed. Prepare a good seedbed, use enough fertilizer and plant early. These are the keys to a profitable oat crop," says Don Graffis, University of Illinois agronomist.

Graffis says to select a variety that will head before the first period of 90° F. weather. Hot weather at heading time causes poor seed set and often causes low test weight.

(SELECT ONE OF THE FOLLOWING THREE PARAGRAPHS TO SUIT YOUR AREA)

In southern Illinois, plant early-maturing varieties. In south-central Illinois, the highest-yielding varieties have been Jaycee, Brave, Clintford, Putnam 61 and Shield.

In central Illinois, Jaycee, Garland, Brave, Shield, Newton and Clintford have been the top-yielding varieties.

Northern Illinois farmers can plant the later-maturing varieties. Varieties that have performed well include Shield, Garland, Tyler, Brave, Clintford, Clintland 64 and Newton. Of the new varieties adapted to northern Illinois, Portal has yielded particularly well.

No single oat variety has resistance to all diseases, but the newer varieties do have improved resistance to most diseases. You can control smut by treating the seed, Graffis says.

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Certified seed best guarantees varietal purity. The germination test is another indicator of seed quality. Graffis points out that planting treated seed often results in at least three additional bushels per acre at harvest.

Early planting allows the oats to flower before hot weather. You should complete planting before the average daily air temperature reaches 50° F. A three- or four-day delay in planting delays maturity one day. Yields are often three bushels less for each day planting is delayed after the best planting date.

A well-prepared seedbed also improves your chance for top yields. A plowed seedbed produces the best yields, especially when soil conditions permit fall plowing. The next best way to prepare a seedbed is to shred and disk the cornstalks.

"Your best bet is to apply fertilizer according to soil tests and the field's previous cropping history," Graffis says. "Oats respond well to nitrogen and phosphorus. But at high nitrogen levels, lodging may result.

Although oats do not usually respond well to potassium, the fertilizer element should be supplied on soils testing low to medium in potassium," Graffis concluded.

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2/8/68

FOR IMMEDIATE RELEASE

Special to Extension Advisers

Feed Grain Program
Worksheets Available

(County name) County farmers may obtain worksheets for the 1968 Feed Grain Program from the County Extension office, reports (your name), (county name) County Extension adviser.

The worksheets, designed by Duane E. Erickson, University of Illinois Extension agricultural economist, will help farmers analyze the effect of the 1968 Feed Grain and Wheat programs on their farm.

Designed for use with ASCS Form 477-1, the worksheet contains a general summary of 1968 program provisions, a filled-out sample worksheet and blank worksheets for farmer use, he says.

(Last name only) suggests farmers use their past farm records as a basis for estimating expected 1968 crop yields and as a guide for figuring production costs.

The worksheet, entitled "The 1968 Feed Grain Program--Provisions, Worksheets and Crop Costs," also may be used as a basis for figuring variable production costs, (last name only) says.

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Farmers will need an estimate of the expected market prices of 1968 crops. The ASCS provides information on base acreages, projected yields, payment rates for diversion and price support. The national average support level for 1968 corn will be $1.05. Illinois county price support levels will range from $1.05 to $1.11 per bushel.

Since March 15 is the final date Illinois farmers can sign up for the 1968 Feed Grain Program, _____ suggests farmers pick up their worksheets now and determine how the 1968 program will affect their farm business.

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2/8/68

FOR IMMEDIATE RELEASE

EXCLUSIVE TO EXTENSION ADVISERS

Ag Communications Scholarships Available

"How am I going to finance the coming year at college?"

That is not an easy question to answer sometimes, but here may be welcome news for any young man or woman interested in studying agricultural communications at the University of Illinois this fall.

The agricultural communications industry is offering $300 scholarships for 1968-69. The scholarships are for students who will enter the University's College of Agriculture in September as freshmen or as transfer students, and who will major in agricultural communications. The curriculum prepares graduates for work in fields such as agricultural writing and editing, radio and television broadcasting, agricultural public relations, photography and agricultural advertising.

If you know of someone who is interested, you might encourage him or her to apply in the near future. Details about applying are available from: Agricultural Communications Scholarships, 330 Mumford Hall, University of Illinois, Urbana, Illinois 61801.

Completed applications are due by April 1.

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EXCLUSIVE
RELEASES FOR EXTENSION ADVISERS
FROM EXTENSION EDITORS . . . 330 MUMFORD HALL . . . URBANA

FOR IMMEDIATE RELEASE

Special to Extension Advisers, Agriculture

PORK INDUSTRY DAY SPECIAL

U. Of I. Pork Industry Day Set For March 19

This year's University of Illinois Pork Industry Day features a look at pork and its competition. Formerly called Swine Growers' Day, the event begins at 9:45 a.m. March 19 in the University Auditorium, Urbana.

Opening the afternoon session, D.E. Becker, head of the U. of I. Animal Science Department, will discuss "The Pork Industry--Now and Its Potential."

Don Turnbull, executive secretary of the American Poultry and Hatchery Federation, Kansas City, Mo., will talk about the poultry industry.

Winding up the program, John Harvey, associate editor of Successful Farming magazine, will speak on "Meatless Meats--Will They Put You Out of the Pork Business?"

The morning session includes U. of I. research reports on feed levels during gestation, mineral studies, hormones in hog feeds, swine buildings and management considerations and "tailor-made corn" for hogs.

Beginning at 8 a.m., early Pork Day visitors may view exhibits of synthetic meats and swine equipment in the University Stock Pavilion. The exhibit will also be open during the noon hour and from 3 to 4 p.m.

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Visitors may park in the southeast section of the U. of I. Assembly Hall lot in Champaign. Buses will run between the Assembly Hall lot and the Stock Pavilion in the morning and afternoon.

The student Hoof and Horn Club will serve lunch in the Stock Pavilion.

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2/15/68

FOR IMMEDIATE RELEASE

Special to Extension Advisers, Agriculture

PORK INDUSTRY DAY SPECIAL

Feed Bred Sows Carefully

A bred sow should receive enough feed to gain 80 to 100 pounds during gestation, says University of Illinois animal researcher D.H. Baker.

How much feed is "enough"? U. of I. research shows that to produce pigs with maximum birth and weaning weights, a sow needs about four pounds per day of a properly formulated ration when the environmental temperature remains about 50 degrees F. Above that temperature, a sow might need less feed and below 50 degrees, more feed.

In the experiments, sows got limited exercise and received an adequate ration during lactation, Baker points out. The gestation rations also met the sow's vitamin and mineral requirements and contained at least 0.8 pound of total digestible nutrients per pound of feed, he adds.

Reproductive problems can arise from feeding sows too much or too little feed during gestation, Baker warns.

U. of I. research also shows that a bred sow needs no more than one-half pound of dietary crude protein per day, particularly if the protein source has good amino acid balance.

Baker will discuss research on feed levels during gestation at the U. of I. Pork Industry Day, March 19. The program starts at 9:45 a.m. in the University Auditorium, Urbana.

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2/15/68

FOR IMMEDIATE RELEASE

Special to Extension Advisers, Agriculture

Dairy Cattle Need Minerals In Ration

Minerals that Illinois dairy cattle most likely need in their rations are common salt and phosphorus, says University of Illinois Extension dairy specialist Ralph Johnson.

Cows may also need extra calcium when their roughage is primarily corn or sorghum silage or when they receive limited roughage and a large amount of grain. Additional calcium, however, shouldn't exceed about two times the amount of phosphorus added to the ration.

Dairy farmers can adequately supplement most dairy rations by mixing about one percent of trace-mineralized salt and one percent of dicalcium phosphate into the grain mixture. Another mineral supplement that contains at least 15 percent phosphorus may replace the dical.

Cows should have free access to a weather-protected feeder containing salt and dical--or other suitable mineral mixes--in addition to the mineral supplements added to the grain ration, Johnson points out.

Steamed bonemeal can substitute for dical, although bonemeal contains only about three-fourths as much phosphorus but slightly more calcium. Steamed bonemeal best fits a feeding program when cows are fed large amounts of corn or sorghum silages.

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Monosodium phosphate, sodium tripolyphosphate and disodium phosphate can substitute for dical when the roughage fed is primarily legume or grass-legume mixtures. These supplements contain 20 to 25 percent phosphorus and no calcium.

Mineral supplements sold under different brand names vary in phosphorus and calcium content. Johnson suggests that dairymen check the approximate percentage of each supplement's ingredients, listed on the feed tag, and then buy the supplement that best suits the roughage fed.

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2/15/68

FOR IMMEDIATE RELEASE

Special to Extension Advisers, Agriculture

Spring Lamb Carcass Show
Features New Class

The second annual Illinois Spring Lamb Carcass Show, set for June 8 at the state fairgrounds in Springfield, features a new class, the progeny pen class for three lambs sired by the same ram.

Sponsored by the Cooperative Extension Service and the Illinois Purebred Sheep Breeders Association, the show also includes a separate class for single lambs of each breed with more than 10 entries. Breeds with less than 10 entries per breed will form an "all other breeds" class.

An exhibitor may make only one entry in the progeny pen class, but he may show one or two of the lambs from the progeny pen entry in the individual classes. Each exhibitor may enter two lambs per breed in the individual classes.

Only lambs born and raised in Illinois are eligible for entry. Each entry must weigh at least 70 pounds and show no testicular tissue. Exhibitors must shear their lambs within 30 days before the show. Crossbred lambs may be shown only if they are sired by a registered ram.

The on-foot competition, starting at 6 p.m. in the Junior Building, features presentations of trophies in the names of the governor and the state director of agriculture.

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Jack Judy, Ohio State University sheep specialist, will judge the on-foot competition. John Romans and Don Garrigan, University of Illinois meats specialists, will judge the carcasses and send carcass data on all lambs to exhibitors. To qualify for placings on the rail, a carcass must grade at least average choice and meet minimum loin-eye requirements.

John Fagaly, Fithian, and Gary E. Ricketts, U. of I. sheep specialist, are co-chairmen of the show. Interested persons may obtain entry blanks from _____ County Extension Adviser _____(name)_____, ___(address)___, ___(town)___.

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2/15/68

FOR IMMEDIATE RELEASE

Consider Crop Costs
Before Signing Up

(County name) County farmers should analyze preharvest and harvest variable costs when considering participation in the 1968 Feed Grain Program.

(Your name), (county name) County Extension adviser, reports preharvest costs include fertilizer, seed, hail insurance, herbicides, insecticides, fuel and repairs for tractors and machinery and other miscellaneous items.

Harvest costs include custom machine hire, drying fuel, fuel and repairs for tractors and machinery and other materials. Total costs for corn may total $30 to $35, (last name only) points out.

In addition to preharvest and harvest costs, be sure to add in costs incurred in establishing a cover crop on land diverted. The costs of fuel and repairs for tractor and machinery, seed and miscellaneous costs may run from $6 to $8 per acre depending on equipment and seed used, he explains.

Obtain further details on crop costs from a copy of "The 1968 Feed Grain Program, Provisions, Worksheets and Crop Costs," available from the county Extension adviser's office, (address, town and zip).

Direct questions on 1968 Feed Grain Program provisions to local ASCS men.

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2/15/68

EXCLUSIVE
RELEASES FOR EXTENSION ADVISERS
FROM EXTENSION EDITORS . . . 330 MUMFORD HALL . . . URBANA

FOR IMMEDIATE RELEASE

Knake Suggests Controls
For Small Grain Weeds

Use 2,4-D or MCPA to control broad-leaved weeds in small grains. Do not use these chemicals, however, where you have planted legume underseedings unless the weed hazard is serious.

Sweet clover, which is particularly sensitive to 2,4-D and MCPA, should not be sprayed, says University of Illinois Extension agronomist Ellery Knake.

For weed control in spring oats, wheat and barley, Knake suggests the amine type of 2,4-D or MCPA. Apply as much as one-half pound per acre--even though grain yields may be reduced somewhat--to control weeds if there is no legume underseeding.

Do not use more than one-fourth pound where legumes such as alfalfa; birdsfoot trefoil; lespedeza; or red, ladino and alsike clover are planted, Knake warns.

The best time to spray spring oats, wheat and barley is just after the tillering stage when grain is about five to eight inches high--and just before rapid elongation or "jointing" of the stem begins. Spraying oats at the seedling, boot or milk stages may reduce yields, since oats are more sensitive to 2,4-D than either wheat or barley.

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If the field contains only small areas of Canada thistle or field bindweed, Knake suggests spot treatments of 2,4-D acid equivalent at one-half to one pound per acre. This treatment, however, will destroy legume underseeding and will probably reduce grain yield in the treated areas.

Where smartweed or wild buckwheat are problems in spring oats or wheat, use Banvel-D (dicamba) at one-quarter to one-half pint per acre (one-eighth to one-quarter of a pound per acre dicamba equivalent). Apply when wheat and oat plants reach the two- to five-leaf stage.

Although winter wheat tolerates 2,4-D better than most spring grains, 2,4-D should not be sprayed on winter wheat in the fall.

Spray in April after tillering ends and before the boot stage starts. Where legumes have been seeded with wheat, one-half pound of 2,4-D amine per acre is maximum. This rate usually controls most troublesome weeds except wild onion and garlic, Knake says.

To control wild onion and garlic, use one-half pound of 2,4-D ester or three-quarters pound of 2,4-D amine. These solutions may slightly reduce wheat yields and will probably destroy legume underseedings.

But even the heavy rates--one-half pound of 2,4-D ester or three-quarters pound of 2,4-D amine per acre--will only kill about 30 to 50 percent of the wild onion and garlic. However, Knake points out, the remaining plants will be so distorted that a combine will miss them if the wheat does not lodge.

-more-

In winter wheat, use Banvel-D to control wild buckwheat, smartweed and cocklebur. Apply Banvel-D in the spring immediately after dormancy--before the grain begins to joint. Use one-quarter to one-half pint of Banvel-D (one-eighth or one-quarter pound dicamba equivalent) per acre.

Brominil or Buctril (bromoxynil), containing two pounds per gallon active ingredient, is a recently developed herbicide that controls many annual broadleaved weeds, including some that are resistant to 2,4-D in fall- or spring-seeded wheat and barley.

Apply 1 1/2 to 2 pints per acre (six to eight ounces per acre active) as an early postemergence treatment in the spring or fall. Bromoxynil does not control annual grasses or perennials, Knake says.

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EXCLUSIVE
RELEASES FOR EXTENSION ADVISERS
FROM EXTENSION EDITORS . . . 330 MUMFORD HALL . . . URBANA

FOR IMMEDIATE RELEASE

Exclusive for Extension Advisers

Beef Production Records
Earn Extra Income

Good production records on beef herds help beef producers increase their income, says _____ County Extension adviser _____.

Individual cows and bulls vary in their ability to produce fast-gaining, money-making calves. Good records indicate which calves a producer should keep or sell as herd replacements, _____ points out.

The difference between beef calves sired by the best bull and calves sired by the poorest bull in the same herd could amount to as much as $600 a year.

In one herd enrolled in the Program, the best bulls sired calves with an average 205-day adjusted weight of 97 pounds more than calves sired by the poorest bull. At 25 cents per pound, each calf sired by the best bull was worth $24.25 more than each calf sired by the poorest bull. Assuming that each bull sired 25 calves that year, the difference amounted to $606.25.

Farmers can enroll either a purebred or commercial beef herd in the Illinois Beef Performance Testing Program for a fee of 10 cents per calf.

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Purebred breeders receive an extra copy of herd records to forward to the breed association office.

For a free copy of a circular explaining the Illinois program, contact _____ at __(address)__, phone _____. Ask for Circular 968, "The Illinois Beef Performance Testing Program."

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2/22/68

FOR IMMEDIATE RELEASE

Exclusive for Extension Advisers

EDITOR'S NOTE: Pull out the sections on varieties not adapted to your area. You may also want to list other varieties you are recommending.

Select High-Yielding
Soybean Varieties

Top-yielding soybean varieties require no more time to plant, fertilize, cultivate and harvest than do mediocre varieties. And they usually yield more than enough to offset the extra cost for seed.

In Illinois, the most promising varieties for 1968 are Hark, Amsoy, Wayne, Adelphia, Clark 63 and Dare, according to University of Illinois Extension agronomist Don W. Graffis.

Graffis explains that while there are other good soybean varieties, those named have yielded the most in long-term tests within their area of adaptation. And he emphasized that because soybeans are a day-length sensitive plant, they should be planted only in their area of adaptation.

Hark. Hark, one of the taller varieties adapted to northern Illinois, matures four to five days later than Chippewa 64. The variety outyields other Group I varieties and yields as well as most Group II varieties.

Hark beans tend to shatter if they ripen during warm weather. The leaves may show a mottled yellow color when grown on soils with a pH above seven. The mottled color results from an iron deficiency that can be corrected by spraying the foliage with iron sulfate.

-more-

Hark is not resistant to phytophthora root rot and should not be grown where the disease is likely to be present.

Amsoy. This Group II variety adapted to northern and north-central Illinois was a high yielder in 1967. Amsoy should replace Harosoy 63 and Lindarin 63 except where phytophthora root rot is a problem.

Amsoy is susceptible to phytophthora root rot and to purple stain of the seedcoat. The variety should not be used--or should be used with caution--in south-central and southern Illinois.

Wayne. Similar in appearance to Shelby, Wayne is the highest yielding variety in central and south-central Illinois. The variety matures 9 to 12 days later than Amsoy and has some phytophthora root rot tolerance. Iron deficiency symptoms--yellow mottling of leaves--may occur when Wayne is grown on soils high in lime. Correct the deficiency by spraying the foliage with iron sulfate.

Occasionally, stem and pod blight cause poor quality seed in southern Illinois.

Clark 63. Clark 63 is a high yielding Group IV variety for south-central and southern Illinois. It is resistant to phytophthora root rot. When the root rot is not present, Clark has yielded about one bushel per acre more than Clark 63. The variety matures 8 to 10 days later than Wayne.

Dare. Dare is a new Group V variety that has yielded well in the southern tip of Illinois. The variety's seed quality is often superior to that of Hill, Ogden and Lee varieties.

Dare's yield record has not been higher than records of some earlier maturing varieties such as Wayne and Kent. But Dare can be used in the southern tip of the state when a late-maturing variety is desired.

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2/22/68

FOR IMMEDIATE RELEASE

Exclusive for Extension Advisers

Percent Legume In Forage Mix
Determines Best Fertilizer Program

The percent legume in your legume-grass mixture determines which nitrogen fertilization program is most profitable for you, says _____ County Extension adviser _____ _____.

When legumes make up 30 percent or more of the mix, _____ suggests you maintain the legume by applying only phosphorus and potassium according to soil test. Apply 50 pounds of nitrogen when legumes make up 20 to 30 percent of the mix.

_____ says when legumes make up less than 20 percent of the stand you should apply 50 pounds of nitrogen in late winter or early spring and 50 pounds after the first cutting.

If you have a pure grass stand, apply 80 to 100 pounds in early spring, 50 pounds after the first cutting and 50 pounds during the first two weeks of September.

A good phosphorus level helps establish seedlings, _____ says. Apply 1,000 pounds of rock phosphate or 30 pounds of P_2O_5 to soils that test "medium" by the P_1 test or "medium to low" by the P_2 test.

Soils that test "very low" by both P_1 and P_2 tests should receive 1,500 pounds of rock phosphate or 160 pounds of P_2O_5 in processed phosphates. If the pH is above 6.5, processed phosphates are likely to be more economical than rock phosphate.

-more-

Legumes require lots of potassium, but they may use twice as much as they need to produce optimum yields if the potassium supply is plentiful early in the season.

Because considerable potassium becomes available from the soil minerals during winter, _____ suggests topdressing potassium after the first cutting.

Generally, more potassium is available in the subsoil--where alfalfa feeds--than in surface soils. Topdressing usually doesn't pay on first or second year stands, or on soils that have a high inherent potassium-supplying power.

_____ suggests annual topdressing on sands and other soils known to be low in potassium-supplying power. And try topdressing some strips in second-year stands on soils naturally high in potassium-supplying power to see whether yield or stand is improved.

If you're producing six to nine tons of alfalfa per acre, _____ says you might try applying 80 to 120 pounds of K_2O after removing the first and third cuttings on part of the field.

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2/22/68

EXCLUSIVE
RELEASES FOR EXTENSION ADVISERS
FROM EXTENSION EDITORS . . . 330 MUMFORD HALL . . . URBANA

FOR IMMEDIATE RELEASE

Ag Engineering Exhibits Highlight
U. Of I. Centennial Open House

The University of Illinois College of Agriculture invites _____ County high school students to tour the college during a university-wide open house, March 8 and 9, celebrating the U. of I. Centennial year.

Agriculture students will conduct tours of college departments from 9 a.m. to 5 p.m. on both days. Open house visitors should park in the Assembly Hall lot and ride the bus to the Stock Pavilion, where the tours will begin.

Agricultural engineering students are preparing exhibits that will be part of the annual Engineering Open House. Their exhibits depict innovations that will influence agriculture in the 21st Century. Insulated concrete wall panels, a radio-operated mower and a driverless farm vehicle, nicknamed "chore boy," are just a few of the featured exhibits.

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JRB:klf
2/29/68

FOR IMMEDIATE RELEASE

Exclusive to Advisers

Limited Opportunity For
Spring-Seeded Wheat

Winter wheats should not be seeded during the spring in any part of Illinois. And spring wheats are adapted only to the northern two tiers of Illinois counties.

University of Illinois Extension agronomist Don Graffis explains that winter wheat requires a cold period after germination for hormone adjustment. Scientists call the cold period the "vernalization period," and wheat that is not "vernalized" seldom initiates flowering or develops full seed heads.

Spring wheat is usually plagued by hazards, Graffis continues. Scab, a fungus disease, can strike anywhere in Illinois, depending on temperature and moisture relationships during heading and early seed development.

The disease not only reduces yields, but also lowers the market quality and feeding value of the grain.

Spring wheat should not follow any cereal crop in a rotation unless all residues--stalks and straws--are completely covered by plowing. Often, Hessian fly and chinch bug populations overwinter and attack spring wheat the next year.

Hot, dry weather sometimes forces spring wheat to mature prematurely, resulting in reduced yields and test weights.

Despite the hazards facing spring wheat, Graffis says the crop can be grown successfully in the northern two tiers of counties. And he suggests farmers in that area grow either Selkirk or Grim varieties because of their performance in U. of I. tests.

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2/29/68

FOR IMMEDIATE RELEASE

Exclusive to Advisers

Dairy Calf Sale
Averages $206

URBANA--Illinois 4-H and FFA members purchased nearly $10,000 worth of dairy calves at the 20th Annual Junior Calf Sale here February 24.

Raymond Gum, Keyesport, paid $410 for the top-selling heifer--a Jersey junior yearling consigned by J. C. Piper and Sons, Sumner. The seven Jerseys consigned averaged $158.57.

The Holstein consignment produced the highest breed average. The 18 heifers averaged $267.78. The top-selling Holstein was purchased by Dennis Bressner, Fairbury, from Joseph Eich, Joliet, for $370.

Eleven Guernseys sold for an average of $165. Larry Joe Heitzler, Prophetstown, sold the top-selling Guernsey to David Akers, Coal Valley, for $300.

The five Brown Swiss consigned also commanded an average price of $165. A heifer consigned by R. B. and C. E. Simon, Princeton, topped the Brown Swiss consignment at $260. The heifer was purchased by William Trotter, Macomb.

Four Ayrshires averaged $168.75 with the heifer consigned by Sumner DeMunn, Belvidere, topping the Ayrshire group at $235. Mary Joe Springer, Bloomington, purchased the heifer.

The two Milking Shorthorns consigned averaged $240. Julian Stoll, Chestnut, purchased the top-selling entry for $270 from Lois M. Bock, Lincoln.

The 47 heifers consigned averaged $206.91. The sale was sponsored by the Illinois Purebred Dairy Cattle Association.

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FOR IMMEDIATE RELEASE

March 15 Final
ASCS Deadline

March 15 marks the final date (county name) County farmers may sign up for the 1968 Feed Grain Program, reports (your name), (county) County Extension agricultural adviser.

When deciding whether to sign up, study ASCS (Agricultural Stabilization and Conservation Service) Form 477-1 which gives information on projected yields, base acreages, payment rates and total price support data.

In addition, make estimates of expected crop yields and crop costs based on your farm records, (last name only) says. Future economic conditions will determine expected crop prices. Illinois price support ranges from $1.05 to $1.11 per bushel for corn.

(County name) farmers should also compare incomes under program participation and nonparticipation before signing up. Other considerations include storage availability, livestock program plans and other projected farm practices including soil conservation and fertility.

You should consider price and production risks, work load, capital availability, tenure arrangement and low-interest corn-storage facility loans by participation before making sign-up decisions, (last name only) notes.

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ASCS Deadline - 2

If you need a worksheet, designed by D. E. Erickson, University of Illinois Extension agricultural economist, for making income calculations, obtain one from your county Extension office, _____ (address, town and zip code) _____.

For answers to questions about the 1968 Feed Grain Program, visit your local ASCS office, __(last name only)__ suggests.

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2/29/68

EXCLUSIVE
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FOR IMMEDIATE RELEASE

Alfalfa Weevil Damage
Spreads In 1968

The area in Illinois south of a line from Paris in Edgar County to Waterloo in Monroe County will be hit hardest by the alfalfa weevil during 1968.

And the area between the Paris-Waterloo line and a line from Watseka in Iroquois County to Hardin in Calhoun County may suffer moderate to severe damage.

That warning comes from University of Illinois and Natural History Survey entomologist Steve Moore. "The weevil is forcing Illinois farmers to spend some money if they want to harvest a satisfactory alfalfa crop," Moore says. "We know farmers can control the weevil. But can they afford to?"

Fortunately, there's only one generation of weevils in the state each year. And the weevils only attack the first cutting and sometimes the new growth of the second cutting.

Because of the cold weather in the northern one-third of Illinois, little fall or winter egg laying occurs and the bulk of the eggs are laid during a relatively short period of time in the spring. The majority of the larvae hatch at the same time, so the period of larval activity is shorter than it is in southern Illinois.

-more-

But in the southern two-thirds of the state, the warmer winter and spring weather allow an early egg hatch and extended egg-laying period. These two factors result in a longer, more critical attack period which may start as early as March 15 and continue into the middle of May.

Moore says that you should apply insecticides any time after March 15 when 25 percent or more of the alfalfa terminals show feeding damage and live larvae are present.

In northern Illinois, weevil feeding may begin late enough so that only one insecticide treatment will be needed. But in the area south of the Paris-Waterloo line, two or three treatments will be needed to protect the first cutting and the new growth of the second cutting.

Moore says to time second and later spray applications using the guide suggested for the first application. And after you make the first cutting, remove the hay and watch the field closely for weevil damage.

If the field doesn't green-up in two or three days, and if worms are present, spray immediately.

Moore lists malathion plus methoxychlor, diazinon plus methoxychlor or malathion as materials you can use when doing your own spraying.

If you hire a commercial applicator to treat your alfalfa, Moore suggests methyl parathion or azinphosmethyl (Guthion).

When spaying with ground equipment, use a minimum of 20 gallons of spray per acre. For stubble sprays, apply 10 gallons per acre. And when making air applications, use a

Moore points out that chemical insect control will cost roughly $4 to $12 per acre, depending on how often you have to spray. Burning--a practice that destroys eggs laid during the fall and winter--can replace one insecticide treatment in southern Illinois.

Artificial burning costs about the same or slightly more than the cost of one insecticide application, but it does not kill the adult weevils. Natural burning can be as effective as artificial flaming, but it's hard to get a complete burn.

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DD:klf
3/7/68

FOR IMMEDIATE RELEASE

Early Corn Planting Pays

Early corn planting pays off in higher yields, shorter plants, lower ear-set and more uniform ear height.

University of Illinois Extension agronomist Don Graffis explains why early-planted corn usually outyields late-planted corn:

--The "grand growth period" when you can almost hear the corn grow coincides with the longest summer days that provide maximum daily sunlight.

--Silking, pollen shed and pollination are more likely to occur when there is adequate moisture available. Early-planted corn usually pollinates before the dry period in late July and early August.

But Graffis points out that the 1966 growing season--one that farmers still remember--didn't follow the general pattern. The summer drought came in late June and early July. Early-planted corn was poorly pollinated, and it produced less than later-planted corn.

"1966 was an exception," Graffis explains, "and the odds still favor early planting."

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3/7/68

FOR IMMEDIATE RELEASE

30-Inch Rows Top UI Tests

University of Illinois research continues to show a yield advantage resulting from 30-inch corn-row plantings.

Regardless of population planted, the 30-inch plots yielded best. However, the greatest advantage resulted when the 30-inch plots were planted at medium to high populations.

Here are the results of a three-year study at Urbana:

--Corn planted in 40-inch rows yielded 127 bushels per acre at a 16,000 plant population level; 133 bushels at 24,000; and 126 bushels at 32,000 plants per acre.

--Corn planted in 30-inch rows yielded 132 bushels per acre at 16,000; 144 bushels at 24,000, and 138 bushels at 32,000 plants per acre.

Many new corn varieties have been designed for high population planting, and the varieties best suit narrow-row plantings.

The best plant population, of course, varies with soil type, variety, fertility level and date of planting.

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3/7/68

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FOR IMMEDIATE RELEASE

Graffis Suggests
Diverted-Acre Seedings

The best seeding mixture for diverted acres depends on how you plan to use the land in the future, your location within Illinois and your soil conditions, especially drainage.

If you plan to plow down the crop and plant corn next spring, and if you can sacrifice some fall grazing, 6 pounds of sweet clover and 6 pounds of red clover per acre will be your best bet.

University of Illinois agronomist Don Graffis says the mixture will provide 40 to 90 pounds of nitrogen per acre as a plow down.

At 7 cents per pound, the nitrogen will be worth from $2.80 to $6.30 per acre. The seed will cost about $3.30 per acre.

If you want to pasture the land this fall and next year, you can choose one of these seedings, depending on where you live:

--In the southern two-thirds of Illinois, seed 10 pounds of tall fescue per acre. Fertilized with nitrogen, tall fescue provides a productive, long-term pasture, especially on poorly drained soils. And it has been particularly useful as a winter pasture. The seed will cost about $1.85 per acre.

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--Another choice for the southern two-thirds of Illinois is to seed 8 pounds of tall fescue and one-half pound of ladino clover per acre. This mixture produces a long-term pasture. But because the legume is short-lived, you'll need to either apply nitrogen after the second or third year or renovate the pasture. The seed for this mixture will cost about $2.00 per acre.

--In the southern three-fourths of Illinois, a mixture containing six pounds of orchard grass and one-half pound of ladino clover per acre will provide a full-season, long-term pasture. Orchard grass can be grown in northern Illinois, but it is not as winter hardy as either bromegrass or timothy. The seed for this mixture will cost about $1.85 per acre.

In northern Illinois, Graffis suggests seeding 8 pounds of bromegrass and one-half pound of ladino clover per acre. The mixture produces a long-term pasture with a short-lived legume that is especially palatable during the early summer months. The seed for this mixture costs about $3.15 per acre.

If you live in the northern one-third of Illinois and want a seeding that will produce a good hay crop for one year, Graffis suggests seeding 8 pounds of red clover and 2 pounds of timothy. Your seed will cost about $3.65 per acre.

A mixture containing 8 pounds of alfalfa and 4 pounds of orchard grass will produce a hay crop that will last for several years. If you live in northern Illinois you can substitute 6 pounds of smooth bromegrass for the orchard grass.

Both mixtures are high yielding and have a high nutrient value when harvested during the early heading stage. Seed for the two mixtures costs about $5.30 per acre.

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3/21/68

FOR IMMEDIATE RELEASE

Exclusive to Advisers

Alfalfa Still Best
For Quality, Yield

Alfalfa still rates best as a high-yielding, high-quality forage crop.

"You'll have to keep a sharp eye for the alfalfa weevil," warns University of Illinois agronomist Don Graffis, "especially after the first year."

Alfalfa seedings can be established with or without a companion crop.

Avoid making new seedings where an old stand has been. You'll get better use of nitrogen by following the old stand with corn and you'll eliminate some diseases, especially seedling diseases.

You'll also reduce the chance of alfalfa weevil attack by moving your seeding. Graffis says weevil control usually isn't needed on spring-seeded stands.

When establishing alfalfa without a cover crop, be sure the seedbed is plowed and firmed. You can use a disc if you're able to cover crop residues.

Use a drill with band seeding. Fertilizer should be banded about 1 1/2 inches under the seed. Use the equivalent of 300 pounds of 0-20-20 or 0-20-10 on dark-colored soils.

On light colored soils, use the equivalent of 300 pounds of 5-20-20 or 5-20-10.

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Make your seeding as soon as the seedbed can be prepared. Use a press wheel or cultipacker after seeding to get good soil-seed contact and coverage.

Graffis says weeds are usually a problem when forage crops are seeded alone. You can double-disc three to four pounds actual Eptam into the seedbed before planting. Eptam controls most grasses and broadleaf weeds, so it can be used only on all-legume stands.

Use one pound actual 4,2,4-DB (Butyrac or Butoxone) as a postemergence spray when alfalfa reaches the three-leaf stage and while the weeds are still small. Since 4,2,4-DB does not kill grasses, it can be used on grass-legume mixture.

If you're treating four-inch alfalfa, dilute the herbicide concentrate so that you're putting about 20 gallons of water on each acre. Use less water on alfalfa shorter than four inches.

Graffis says spring-seeded stands usually yield about half as much as established stands. You can expect to get 1 to 1 1/2 tons of hay from the first cutting about July 1. Your fields should yield 2 1/2 to 5 tons per acre.

The last cutting from a spring-seeded stand should be made about September 1 in northern Illinois and about September 15 in southern Illinois. A late-fall cutting can seriously reduce yields in following years.

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3/21/68

FOR IMMEDIATE RELEASE

Exclusive to Extension Advisers

Check Anhydrous
Timing And Placement

High ammonia concentrations near the seed or root zone can cause delayed germination, low germination rates, stunted growth and phosphorus deficiency in young corn plants.

To avoid problems with anhydrous, University of Illinois agronomists offer these suggestions:

--Put ammonia deep in the soil. The greater the rate and the shorter the time between application and planting, the deeper the anhydrous should be placed.

--If you apply anhydrous and plant the same day, place the anhydrous 10 inches deep. Placed less than 10 inches deep, anhydrous may cause damage even at rates as low as 100 pounds of nitrogen per acre.

--By allowing a week-long interval between application and planting, you can safely place 100 pounds of nitrogen per acre at 7 inches. But 200 pounds of nitrogen should be placed 10 inches deep.

--If you apply more than 200 pounds of nitrogen per acre, allow more than a week-long interval between application and planting, or decrease the spacing between knives.

The agronomists base these suggestions on the results of a recently completed study of timing, rates and depths of anhydrous placement with 30-inch knife spacings.

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3/21/68

FOR IMMEDIATE RELEASE

Exclusive to Advisers

EDITOR'S NOTE: Edit the third paragraph to suit your area.

Early Corn Planting Pays

Top corn producers know that they lose one or two bushels a day for every day they delay planting after the earliest possible planting date.

Corn will germinate and start to grow any time the soil temperature at a four-inch depth reaches 50° F., says W. O. Scott, University of Illinois agronomist.

The early-planting corn grower in southern Illinois gets his crop in as soon after April 1 as he can. In the central part of the state, he tries to start by April 20. And in northern Illinois, the corn grower plants in early May for top yields.

Light and moisture play an important role in the corn plant's response to early planting.

Early-planted corn has well-developed leaves by the longest day of the year--June 21--so the corn is exposed to more energy from the sun than late-planted corn. Corn should be knee-high by June 4 instead of July 4, as the old adage goes, says Scott.

Light is a necessary first ingredient in the production of sugar which converts to starch and ultimately makes up the major portion of the corn kernel.

-more-

In an average corn-growing season, dry, hot weather usually occurs in late July and early August when late-planted corn usually tassels. And since tasseling and pollination are the most critical times in the life of the corn plant, hot and dry weather at this time can lower yields, Scott says.

Early-planted corn tassels in early July, when the chances for rain are better, temperatures are lower and the soil contains more moisture.

There are other advantages to early planting. Hybrids planted early produce a shorter stalk with a lower ear than the same hybrids planted later. Shorter stalks with low-set ears usually lodge less.

Early-maturing corn also helps to ease the rush to the elevator at harvest time, Scott points out.

But early planting results in some disadvantages, too, says the agronomist. Weed and insect problems increase and there's a greater danger of damage from late frosts.

Late frost is a tough problem to handle, especially when it occurs in June and July, as it sometimes does in northern Illinois. But corn usually rebounds from frost damage, says Scott.

In the average year, frost won't be a problem, but Illinois farmers still must gamble on the average. The one- to two-bushel gain per day resulting from early planting appears worth the gamble.

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EXCLUSIVE
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FOR IMMEDIATE RELEASE

Exclusive to Extension Advisers

Watch For Fertilizer Quacks

If you're approached to buy a new and unusual soil treatment material, think before you buy. You may be talking to a fertilizer quack.

Sam Aldrich, University of Illinois agronomist, says many of the materials have no proven value on Illinois soils. He suggests you consider these points before you buy:

--Study the specific claims. Ask about the guaranteed analysis and whether the elements are in an available form.

--Ask whether the material has been tested by an unbiased research institution such as the U. of I. Testimonials from farmers in other states--under different soil and crop conditions--are likely worthless. And chances are, the farmer made no real comparison with standard fertilizers.

--Compare the cost of actual plant nutrients with the cost of equal nutrients in standard fertilizers.

Aldrich says the quacks often claim that their product stimulates the release of locked-up soil nutrients, feeds the soil bacteria, conditions the soil, guards against drought and in general supplies nutrients more efficiently than conventional fertilizers.

Some salesmen do not guarantee a level of nitrogen, phosphorus or potassium to sidestep regulations of the Illinois fertilizer law.

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In some cases, the materials supposedly provide benefits from micronutrients, but the content is not guaranteed and may be less than is already in the soil.

Aldrich points out that the nutrients may not be available even if they are present and several elements present are not used in plant growth.

Aldrich advises farmers who want information about an unknown material to contact their county Extension adviser and established fertilizer dealers before they buy.

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3/28/68

FOR IMMEDIATE RELEASE

Benefits From Incorporation
Depend On The Herbicide

The type of herbicide you use determines whether you should incorporate it, says University of Illinois Extension weed specialist Ellery Knake.

Knake lists these three herbicide types:

--Herbicides such as EPTC which are either volatile or are likely to decompose rapidly if left on the soil surface. Such herbicides should be incorporated deep enough to reduce surface loss. The exact depth depends on factors such as soil texture, soil moisture and the chemical and physical properties of the herbicide.

--Herbicides such as atrazine which are less volatile, but gradually lose their effectiveness when left on the soil surface. Under relatively dry soil conditions, such herbicides may perform better when incorporated.

--Herbicides such as CDAA and linuron which are usually most effective when applied to the soil surface. Herbicides in this class may lose their effectiveness when incorporated.

Decreased effectiveness of highly soluble herbicides has been attributed to rapid leaching, says Knake. But sometimes herbicides of low solubility also perform less satisfactorily when incorporated. The decrease in effectiveness of some herbicides may be caused by greater adsorption onto the soil particles when they are mechanically incorporated.

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Knake cites recent evidence that many preemergence herbicides control certain grass weeds most effectively when the chemicals are positioned for uptake in the shoot zone. He points out that roots have generally been credited as the site of absorption.

Knake also describes a "dilution effect" that occurs as the incorporation depth is increased. When incorporated, he says, herbicides should be kept relatively shallow and concentrated in the shoot zone.

But incorporation sufficient to reach soil moisture may increase absorption of the herbicide and mask the decreased effectiveness caused by dilution.

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3/28/68

FOR IMMEDIATE RELEASE

Farm Record Keepers
To Get 1967 Results

(County name) County farmers will have an opportunity to discuss and compare results from 1967 farm records at a record analysis meeting (month, day) at (building), (town).

Co-chairmen of the meeting are (your name), (county name) County Extension adviser, and (local FBFM fieldman's name), Farm Bureau Farm Management fieldman.

One of many held for Illinois FBFM cooperators, the meeting will give county farmers a chance to study the records of farmers who harvested as much as 150 bushels of corn per acre in 1967 and compare those records with their own. Farmers will also be able to compare costs and returns from 160-, 240-, 320- and 900-plus-acre farms.

(Fieldman's last name only) will present charts to help each farmer learn where he ranks in relation to other record keepers in his area. He will also discuss factors causing variation in earnings.

Nearly 7,000 Illinois farmers are currently enrolled in the FBFM record keeping and business analysis program, (your last name only) says. (County name) County has (number) farmer-cooperators who use the program to make management decisions.

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JTS:klf
3/28/68

FOR IMMEDIATE RELEASE

County Farmers To Review
1967 Farm Record Results

(County name) County farmers can compare their livestock and grain operations with operations of a similar size at the annual Farm Bureau Farm Management record analysis meeting (month, day).

The meeting will be held at (building or place) in (town), reports (name), (county) County Extension adviser.

1967 record summaries show that grain income was down at least 10 percent from 1966. Even though crop yields were the highest on record, drying expenses and low prices offset the yield advantage.

Livestock summaries indicate that the number of litters of pigs farrowed on farms increased from 53 in 1960 to 77 in 1967. Average dairy herd size grew from 30 to 40 cows during the same eight-year period.

Cattlemen fed an average of 116 head in 1960 but increased that number to 174 head by 1967, (last name only) reports.

If you would like to compare your farm records with your competitors, whether you are an FBFM cooperator or not plan to attend the meeting, he urges.

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More than ___(number)___ ___(county name)___ County farmers are enrolled in the record-keeping and business analysis program. Participation in the program helps cooperators keep accurate records and make better management decisions, ___(last name only)___ points out.

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JTS:klf
3/28/68

FOR IMMEDIATE RELEASE

Carcass Show To Be June 8

Illinois sheepmen can evaluate the carcass quality of their market lambs this spring at the second annual Illinois Spring Lamb Carcass Show.

Scheduled for June 8 in the State Fairgrounds Junior Building, Springfield, the show will focus on complete carcass cutout data, reports ___(your name)___, ___(county)___ County Extension adviser.

In addition to the individual lamb show, the event features a progeny class. Show rules limit each family, firm or corporation to one pen of three lambs from the same sire, he says.

Jack Judy, Ohio State University sheep specialist, will judge the on-foot competition. John Romans and Don Garrigan, both University of Illinois meats specialists, will judge the carcasses and send carcass data on all lambs to exhibitors, ___(last name only)___ says.

Co-chairmen for the 1968 show are John Fagaly, Fithian, and Gary E. Ricketts, U. of I. Extension sheep specialist. The U. of I. Cooperative Extension Service and the Illinois Purebred Sheep Breeders' Association are co-sponsors of the second annual show.

Sheepmen may obtain entry blanks and copies of show regulations from ___(your name and complete address)___. They should send all entries to Fagaly before May 18, he points out.

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Exclusive to Advisers

Protect Your Home By Controlling Condensation

Modern tight construction and greater insulation in houses increases humidity problems, says Don Jedele, University of Illinois agricultural engineer. Exterior paint, crawl-spaces in basementless houses and attics are the most frequent points of damage.

You can solve the attic moisture problem by providing gable louvers, under-eave vents or roof ventilators through which air can circulate. The area of the vents should be at least 1/300 of the floor area beneath the attic.

If the attic has no ventilation, water may condense on the roof sheathing, drip back onto the ceiling and cause plaster damage.

To control crawl-space moisture, Jedele suggests that you provide at least two square feet of ventilator area for every 100 lineal feet of foundation wall. Cover the ground in the crawl-space with four or six millimeter polyethylene film. In the winter you can close the ventilators because the soil cover prevents excess moisture condensation.

Exhaust fans over the kitchen range and in the bathroom can control moisture in the house. Clothes should be dried in a well-ventilated, closed room. A vented automatic dryer is an even better solution.

-more-

Protect Your Home - 2

In new construction, installation of a vapor barrier on the warm side of the wall next to the plaster keeps the insulation dry, prevents wall stud and sill decay from moisture and protects exterior paint.

The barrier may be plastic film, aluminum foil or vapor proof Kraft paper. In existing houses you may use two coats of varnish-base aluminum paint on the inside surface of the exterior walls to reduce vapor diffusion through the wall.

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JRB:bf
4/4/68

FOR IMMEDIATE RELEASE

Exclusive to Advisers

Crop Rotation Curbs
Soybean Brown Stem Rot

Because red clover can be infected by the fungus causing brown stem rust of soybeans, Michael P. Britton, U. of I. Extension plant pathologist, says that soybeans should not directly follow red clover in the crop rotation.

Crop rotation is currently the only method of controlling brown stem rot. The disease has become important only where soybeans have been grown continuously for several years, or where they have been grown repeatedly in short rotations.

Red clover still has a place in Illinois farm rotations. But Britton suggests planting corn, small grains or sorghum for one or more years between red clover and soybeans.

Corn is a desirable follow-up crop because it utilizes the nitrogen stored by the legume and breaks the chain in the buildup of many pathological organisms. Because they can fix their own nitrogen, soybeans do not greatly benefit from nitrogen stored by red clover or other legumes.

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4/4/68

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FROM EXTENSION EDITORS . . . 330 MUMFORD HALL . . . URBANA

FOR IMMEDIATE RELEASE

Special to Extension Advisers

"Pop-Up" Fertilizer;
When To Use It

Farmers who plant early, especially those in northern Illinois where soils are wet and cool, are most likely to get results from "pop-up" fertilizer.

The main argument for pop-up fertilization is that it promotes faster planting when compared to side-band placement because only half as much fertilizer is applied. And as a result, farmers may get more acres planted early and get higher yields.

But University of Illinois agronomist Sam Aldrich says that in most areas of Illinois where the fertility level is already high, you should not expect much yield response from pop-up placement itself.

Aldrich points out two general misconceptions about pop-up fertilizer. Despite what many think, corn fertilized with pop-up will not come up sooner than corn without pop-up. But it will grow faster for a few weeks after it emerges.

The seed and the pop-up are not mixed before planting, Aldrich explains. The fertilizer is placed in contact with the seed during the planting operation.

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Pop-up makes corn look good early in the growing season. And it may make earlier cultivation possible, increasing the effectiveness of mechanical weed control.

But if your fields already have a high fertility level, Aldrich says that you probably won't notice much yield difference between fields where you apply pop-up and fields where you band fertilizer to the side and below the seed.

If you want to try pop-up, he suggests using a fertilizer with N, P and K in a 1-4-2 ratio (oxide basis P_2O_5 and K_2O). Generally, you will apply about 40 to 60 pounds of fertilizer in common grades. But do not apply more than 10 to 12 pounds of nitrogen plus K_2O per acre if you are planting 40-inch rows. To keep the same amount per foot of corn row, you will need to increase the amount you apply when you plant 30- or 20-inch rows.

Aldrich says you may use either dry or liquid fertilizer. But he warns that applying more than 10 to 12 pounds per acre--though safe in a normal season--may reduce the stand if the weather turns dry soon after planting.

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4/11/68

FOR IMMEDIATE RELEASE

Exclusive to Advisers

Make High Quality Haylage

Chop your forages at about 50 percent moisture to achieve maximum quality, low-moisture silage or haylage. Increased field losses due to shattering occur if the crop is allowed to get drier.

Gary Harpestad, University of Illinois Extension dairy specialist says that haylage can be stored in either conventional tower silos or air-tight structures if you're careful when harvesting the crop.

Harpestad lists these rules for making high quality haylage:

--Cut the forages in the early stages of development. Mixtures containing alfalfa should be cut when the alfalfa is in the bud or pre-bud stage.

--Use a hay conditioner to speed up field drying time and save valuable leaves.

--Keep the knives and the cutting edge on the forage cutter sharp.

--Use a covered wagon to keep field losses at a minimum.

--Keep the material evenly distributed in the silo during filling.

--Fill the silo as fast as possible.

--Use a plastic cap to seal the silo top if you don't start feeding haylage within a day or so after filling.

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Dairymen who are storing the forage in a conventional upright solo should check silo walls for cracks and seal the doors to exclude air, Harpestad says. He doesn't recommend storing haylage in bunker or trench silos to inexperienced operators.

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FOR IMMEDIATE RELEASE

Soil Temperature Guides
Early Corn Growers

If you're anxious to start corn planting, University of Illinois agronomists give this advice: Plant according to soil temperature early in the season; later, plant by the calendar.

Corn rarely germinates until soil temperatures reach 50° F., and germination occurs slowly until soil temperatures go above 55° F.

When soil mixture conditions are right for planting, soil temperatures will rise rapidly--even to a depth of four inches--on a clear day. Consequently, the time you measure soil temperature is important.

Here are two guides indicating when the agronomists feel that you can safely start corn planting after April 1 in southern Illinois, April 15 in central Illinois and April 20-25 in northern Illinois:

--Plant when the soil temperature at 7 a.m. reaches 50° F. at the two-inch level. Conditions should favor corn growth during most of each day if the sun continues to shine.

--Plant when the soil temperature at 1 p.m. reaches 55° F. at the four-inch level. The four-inch measure is not as greatly affected by a single day of sunshine as are temperatures at a two-inch level.

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For example, the two-inch temperature of exposed soil was 68° F. at 1:30 p.m. on April 12 in Urbana. At 8 a.m. on April 15, following a rain on Easter Sunday and an overnight low of 32° F., the temperature dropped to 43° F. at both the two-inch and four-inch depths.

By 11:30 a.m., the two-inch temperature had increased 17 degrees and the four-inch temperature had increased 8 degrees. The agronomists explain that bright sunshine increases soil temperature more rapidly than most people expect, even to a depth of 4 inches.

And they add that the soil temperature data from the weather bureau are based on samples taken from under sod. In the spring, temperature readings taken at noon on a clear day from soil covered by sod are often 8 to 12 degrees lower than temperatures taken from exposed soil.

The agronomists say that early-planted corn seldom suffers damage from late spring frosts because the young corn plant's growing point remains underground until the plant is 12 to 14 inches tall.

The leaves that "frost off" would eventually have become the plant's lower leaves. The lower leaves do not function long during the growing season, and their loss results in little yield drop.

The agronomists suggest starting to plant early and chancing freeze damage. If you delay planting until all danger of freezing is past, rainy weather may cause you to postpone planting much later than desired. By the time you get back to the fields, it may be too late to produce top yields.

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FOR IMMEDIATE RELEASE

Plan Herbicide Program
To Avoid Residue Problems

Farmers following crop rotations sometimes need to plan their herbicide programs to reduce or eliminate residues as well as to control weeds.

University of Illinois agronomist Ellery Knake says that herbicides such as atrazine--a chemical widely used on corn--may affect crops other than corn the year following application, unless certain precautions are taken.

Do not use atrazine where you plan to seed small grains, small-seeded legumes or vegetable crops this fall or next spring.

Soybeans are less sensitive to atrazine residues than are oats. When atrazine is carefully and accurately applied at the proper rates, soybeans planted the next year usually are not affected significantly in Illinois.

While atrazine is one of the best herbicides for controlling weeds in corn, Knake suggests these ways to minimize the possibility of a residue problem:

--Use a low-residue herbicide such as Ramrod, Randox or 2,4-D, or else use no herbicide on the last year of corn before planting a sensitive crop.

--Use a herbicide combination. Combinations including herbicides that complement each other in the weeds they control and that do not injure the crop treated are the most satisfactory. By using a combination, you can reduce the rate of the more persistent herbicide to a level that is not likely to cause residue problems.

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--Use a band application. A 13-inch band used on 40-inch rows requires only one-third as much herbicide per acre as a broadcast application does. When the soil in the band is mixed with the untreated soil between the rows, fewer residue problems result.

--Use a postemergence atrazine-oil application, especially if the soil is relatively high in organic matter. When used with oil, the atrazine rate can be lower than when used alone. But be sure to apply atrazine-oil within three weeks after planting. Late applications increase the chance of residues.

Plowing and other tillage practices tend to dilute the herbicide residue in the soil and decrease the chance of crop injury. Applying atrazine as a preplant application within two weeks before planting also allows more time for decomposition of the herbicide before the next crop season.

Over-application resulting from boom laps, improper calibration, double spraying headlands or leaving the sprayer running while the tractor is stopped can also produce high-residue spots, Knake warns.

Select the correct herbicide rate for your soil type and make a uniform and accurate application with equipment in good operating condition.

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FOR IMMEDIATE RELEASE

Don't Pasture Too Early

Don't pasture dairy cattle before the pasture is ready, warns University of Illinois Extension dairyman Ralph Johnson. The practice can permanently harm young plants and reduce the summer carrying capacity of your pasture.

Wait until your legume-grass pasture has at least four to eight inches of growth. The ground should be firm enough that the cows' hoofs can't damage plant roots.

Cows should get a full feed of hay or silage before they are pastured for the first time. Johnson also suggests pasturing cows for just a few hours the first day.

Because early pasture contains lots of water, high-producing cows can't eat enough to meet their dry matter needs. Johnson suggests feeding hay or silage with the pasture forage.

High-producing cows also need some grain when they are grazing early spring pasture. Dairymen should feed enough of a grain mixture containing about 12 percent total protein to maintain each cow's normal body weight and milk production.

Cows should also have free access to a mineral mixture containing equal parts of trace-mineralized salt and dicalcium phosphate. Feed the mineral mixture in weather-protected boxes in the pasture.

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FOR IMMEDIATE RELEASE

Strip Grazing Boosts
Pasture Yields

You can pasture more cows per acre by strip grazing than by pasturing the entire field, says University of Illinois Extension dairyman Ralph Johnson.

Strip grazing may mean increased milk production per acre and higher returns to the dairyman because the practice reduces pasture waste.

To set up the strip grazing system, divide your pasture into long strips with electric fences. Make each strip wide enough to provide four to five days of grazing for the herd. An acre of good pasture can feed 40 to 50 cows for one day.

Four strips will be needed to allow three weeks regrowth of forage before the cows are pastured on the strips for the second time. Arrange the strips so the cows have access to water and shade.

Stretch a wire across the strip nearest the barn marking off one day's pasture area. Move the wire ahead on the same strip each day and allow the cows to back-graze until they have grazed the entire strip during a four- or five-day period.

After you move the cows to another strip, clip the forage they didn't eat. If the forage in one or more of the strips becomes too mature for grazing, cut the crop for hay or silage.

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Johnson says that forage yields from this system will more than pay for the extra labor and fencing required. You'll spend less than 30 minutes a day moving the cross-wire to give the herd access to fresh pasture.

Dairymen who are unable to follow a daily rotational system can still use the strip grazing principle to increase forage yields. They can divide the pasture into four separate strips and let the cows graze one strip for four to five days before moving the herd to the next strip.

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Exclusive to Advisers

Plant Sorghum-Sudan Hybrids Early

When should you seed sorghum-sudan hybrids? By seeding early, you'll get a longer grazing season and more regrowth during the season.

In a three-year study, University of Illinois dairy scientists S. L. Spahr and E. E. Ormiston found that under Illinois conditions sorghum-sudans seeded between May 10 and May 20 were large enough to graze about June 12 to 25.

Seedings made in late June or early July start faster and are ready for grazing in one to two weeks less time than the earlier seedings.

But when late-seeded, the sorghum-sudans provide only two grazings, and they produce 28 percent less pasture than early-seeded stands, the dairy scientists explain.

Early seedings provide three and sometimes four grazings if the season permits early planting. One acre of well-managed sorghum-sudans will provide pasture for three to five cows during the grazing season.

The rapid growth of sorghum-sudans sometimes makes it difficult to graze the entire crop before it gets too big and mature.

The dairy scientists suggest that you plant enough sorghum-sudan to provide two weeks of pasture as early as possible. Plant the remaining acreage you need about two to three weeks later.

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By following this practice, you'll have a constant supply of ready-to-graze pasture. You can divide the pastures into plots to allow each plot two to three weeks regrowth time while the other plots are being grazed.

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Feeding Dairy Cows At Calving Time

Give dry and milking cows all the high-quality roughage they will eat, says L. R. Fryman, University of Illinois Extension dairyman.

Feed enough of a high-energy grain mixture with the roughage to fill the gap between nutrients required by the cow and those furnished by the roughage.

Most fresh cows will eat a lot of grain and roughage if they are properly conditioned before calving. Condition cows by gradually increasing the grain fed to dry cows, starting about two or three weeks before calving. But don't feed too much grain before calving.

The cows should be eating from 1 to 1 1/2 pounds of high-energy grain mixture per hundred pounds of body weight at calving time.

Larger cows will generally need the most grain. Feed Holsteins about 12 to 18 pounds of grain per day. If fed more, they will probably eat less roughage and increase your feed bill.

Increase grain allowances after high-producing cows freshen. Feed more grain than milk production indicates necessary until the cow reaches a production peak, then adjust the amount of grain you feed.

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For example, feed Holsteins about one pound of grain for each 2 1/2 to 3 1/2 pounds of milk produced after they reach peak production. Jerseys and Guernseys, the higher testing breeds, should get one pound of grain for each two to three pounds of milk produced.

Grain mixtures that are formulated to properly supplement the kind and quality of roughage fed to the milk herd are also good mixtures to feed fresh cows.

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UI Circular Explains
Condemnation Suits

Many farmers do not know how the public "takes" private property.

The better an owner knows and understands his rights and the rights of the public in taking land, the more likely he is to realize that he needs an attorney's advice in the transaction, say University of Illinois agricultural law specialists.

A government cannot exist without the right of "eminent domain"--the right to take land that it needs--any more than it can exist without the right to defend itself.

In general, the power of eminent domain is a fundamental governmental power that may be exercised by lower agencies of the government through legislation.

For example, counties, as part of the state government, have been given the legal right to improve highways and take any property needed to straighten or widen old highways or build new ones.

Agencies that need rights to private property first try to get them through agreement with the owner. If the owner refuses to give the rights, the agency may start an eminent-domain proceeding.

An eminent-domain proceeding is a suit at law and must be held in a court. Such proceedings insure fair treatment of the property owner and provide the rights needed by the public to obtain land.

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A University of Illinois publication, "Condemnation: The Public Taking of Illinois Farm Land," answers questions concerning Illinois law and condemnation procedures. You may get a copy of the booklet from your county Extension adviser. Ask for Circular No. 974.

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5/2/68

FOR IMMEDIATE RELEASE

Avoid Pasturing Woodlands

Woodlands never supply much pasture, says University of Illinois Extension forester Ted W. Curtin. And in the spring, they may be dangerous to livestock.

Curtin points out that many spring and summer woodland flowers can poison livestock.

Buttercups, jack-in-the pulpit, Dutchman's-breeches and dwarf larkspur as well as others can cause serious illness and death to animals that graze woodlands.

And the leaves of oak, black locust, buckeye and the coffee tree are known to poison livestock, Curtin says. Tree flowers and bark are sometimes harmful.

Curtin says a Monroe County farmer who pastured pigs in a timber this spring lost nine pigs in 24 hours. Oak leaves found in the dead pigs' stomachs were determined to have caused the deaths.

Woodlands can be harmful to livestock, but Curtin points out that grazing livestock are harmful to woodlands too.

Young trees suffer most as cattle browse them and tramp them down.

Livestock compact the soil, and they litter and tear up the natural ground cover. Sometimes roots are bruised and exposed, allowing disease organisms to enter the trees.

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FOR IMMEDIATE RELEASE

New Pork Carcass Grades
Reward Muscling

New grading standards now in effect for pork carcasses place more emphasis on muscling in relation to carcass length or weight than had been the case with previous standards, which had been established in 1955.

G. R. Carlisle, University of Illinois Extension swine specialist, sees these new grades as a step in the right direction to reward the hog producer for marketing a meatier hog with more retail value.

New carcass grades are: U.S. Nos. 1, 2, 3, 4, and Utility. While backfat will continue to be the basic criteria for determining grade, the final grade will be influenced by the degree of muscling present.

With the new grades, carcasses with better muscle development than typical for the grade can be given a higher grading than what the length, weight, or backfat would indicate.

By the same token, Carlisle explains, carcasses exhibiting good length and backfat, but showing poor muscling, can be downgraded. No carcass can be graded U.S. No. 1 with less than moderately thick muscling, no matter what the backfat measures, Carlisle adds.

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Under the new grading standards, any carcass displaying poor quality lean, or a belly that is too thin to produce satisfactory bacon, will be graded Utility, regardless of other carcass characteristics.

The new U.S. No. 1 grade will include some carcasses which formerly could not be graded No. 1 because they did not have sufficient backfat thickness. These were some of the finest and most valuable produced by the pork industry, in Carlisle's opinion.

He reminds producers that with carcasses being measured against a more demanding set of standards now, carcasses that would have once made the grade as U.S. No. 1 will now only grade No. 2.

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FOR IMMEDIATE RELEASE

Handle Insecticides Safely

You need to handle all insecticides safely. But some materials used to control resistant corn rootworms and alfalfa weevil demand special precautions.

Universtiy of Illinois and Natural History Survey entomologist Roscoe Randell offers this advice:

--If you're using the organic phosphates or carbamate to control resistant corn rootworms, be careful. Whenever possible, use granules to control resistant roctworms.

--If you're using methylparathion or azinphosmethyl (Guthion) to control the alfalfa weevil, be careful. These materials are recommended for use by experienced operators wearing protective clothing. If you're applying your own alfalfa weevil control, use less toxic chemicals such as malathion, methoxychlor, diazinon or combinations of the three materials.

Randell says all of the materials named give good control, but they're more toxic than many of the insecticides used in the past. The chemicals are less persistant, however, and will probably decrease or eliminate potential crop and possible environmental contamination.

Before you launch your insect control program, notify your doctor if you're using one of the more toxic chemicals. If your doctor knows the name of the material you're using, he can prepare to treat any problem resulting from an accident or misuse.

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Handle Insecticides Safely - 2

Wear rubber gloves, a respirator and goggles when handling liquid concentrates. A dust mask, goggles and gloves provide adequate protection when handling granular insecticides.

As usual, follow all safety precautions on the label.

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FOR IMMEDIATE RELEASE

Hot Days, Dry Weather
Cut Corn Yields

Below average rainfall periods or above average temperatures will not seriously affect corn yields--unless they come at the same time.

One inch less than the average rainfall reduces yields only if the average maximum temperature exceeds 80 to 83 degrees F., says University of Illinois agronomist Ed Runge. But as temperatures go up, watch out.

During the crucial pollen shedding period, temperatures of 85 and 90 degrees F., cut yields about two percent and nine percent respectively. But if the maximum temperature averages 100 degrees F. for 8 days and no rain falls, corn yields drop nearly 25 percent.

During the three weeks before pollen shedding, an inch less than the average rainfall, combined with 100-degree temperatures, decreases the yields by only 6 to 8 percent.

If there is no rain during the eight-day pollen shedding period, your yield drops 15 percent for every 10 degrees of temperature above the 87-degree average. However, if you get one inch of rain, you only lose about one percent for every 10 degrees the temperature is above average.

Two inches of rain during the eight-day pollen shedding interval, combined with above average temperatures, actually boosts corn yields. You can expect about a 1.3 percent yield increase for each degree the temperature rises above average. The example percentages are relative and may change in different areas, Runge adds.

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Hot Days, Dry Weather - 2

Rainfall and temperature are a measure of the "evapo-transpiration potential"--the amount of water lost from the soil both by surface evaporation and transpiration from the growing plants. The higher the temperature, the more moisture required. The lower the temperature, the less moisture required.

The amount of rainfall and the temperature become most critical from three weeks before shedding starts until two weeks after it ends. Runge says that rainfall and temperature have virtually no effect on corn yields 30 days after pollen shedding ends.

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FOR IMMEDIATE RELEASE

Check Your Hay Yield

Knowing hay yields is as important as knowing corn yields, milk production or pounds of beef produced. If you know the yield, you can determine the crop value, says University of Illinois agronomist D. W. Graffis.

You can check yields easily if you know the number of acres in a field. Most balers have a bale counter and you can estimate the bale weight by weighing 10 or more bales from your field.

While placing the bales in the barn, set aside 10 or more bales at random. After three weeks, weigh the bales and determine their average weight. Multiply the average bale weight by the number of bales the field produced and divide by the acres baled to figure the amount of air-dry hay produced per acre.

For fields of unknown acreage, Graffis suggests measuring the distance between windrows including the width of one windrow. Measure in three or four places to determine the average width. Next, measure the distance you must travel down a windrow to make 10 bales. Weigh the bales from that area to find their total weight.

Multiply the width required to make a windrow by the distance required to make 10 bales to figure the area that produced the bales. Divide the total bale weight (pounds) by the area figure (square feet) and multiply by 21.78 to get the tons of hay per acre at field moisture.

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Check Your Hay Yield - 2

To estimate the yield on a mow-dry basis, store the 10 bales in the barn, and weigh them again in three or four weeks. Simply substitute the dry hay weight for the fresh hay weight and make the same calculations.

Estimate moisture by taking five or more two- to three-pound samples from the windrow before baling. Put the forage in a dry burlap bag, weigh the bag and its contents, record the weight on a piece of paper and hang the bag in a dry, rodent-free place.

After the samples have dried for three or four weeks, weigh the bag and its contents, weigh the bag alone, and subtract the weight of the bag from the recorded field weight and from the dried weight. Divide the dry weight by the field weight to get the dry-hay equivalent.

Graffis says that these yield estimating methods can be useful as a check on your farming operations. If you select the heaviest bales and measure the shortest distance required to produce 10 bales, you will overestimate your yields, he adds.

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5/9/68

FOR IMMEDIATE RELEASE

Illinois Spring Barrow
Show Set For February 8

The 1969 Illinois Spring Barrow Show will be held Saturday, February 8, at the State Fairgrounds at Springfield. The Illini Pork Premiere class, initiated in 1968, will be continued, as will classes for single barrows, truckloads and a regular carcass class.

Two major changes have been made in the show, according to show planning committee chairman Bill Baumgartner. The carcass class will be expanded by automatically including the first three place winners in each single barrow class, plus one barrow of each exhibitor's choice, to be designated at weigh-in time.

The Pork Premiere has also been revised to place more emphasis on weight per day of age. Less emphasis on loin eye size will be used to determine the winner.

Heavy carcasses, weighing over 160 lbs. will be allowed up to 1.5 inches of backfat. This compares with a maximum 1.4 inches in 1968.

"We think these changes will help encourage the production of fast-growing, meaty pigs by removing the penalty from the quick-gaining pig that has a heavy carcass at show time," Baumgartner states.

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BC:klf
5/9/68

FOR IMMEDIATE RELEASE

Practice Safe
Insecticide Handling

Modern insecticides give excellent control. And when used correctly, they're safe to use.

University of Illinois and Natural History Survey entomologist Roscoe Randell emphasizes the importance of reading the label and following directions.

"Apply insecticides at the rate suggested and be certain you have the right insecticide for the job," Randell urges.

He suggests these additional safe-handling procedures:

--When opening and pouring from insecticide containers, stand so the wind blows the material away from you.

--Do not smoke while handling or using insecticides.

--Leave unused insecticides in their original containers with the labels on them.

--Store insecticides out of reach of children, animals and irresponsible persons, preferably in a locked building.

--Wash out and bury, burn or haul to the refuse dump all empty insecticide containers.

--Do not put the water-supply hose directly into the spray tank.

--Do not blow clogged nozzles or spray lines with your mouth.

--Wash exposed parts of the body and clothes contaminated by insecticides with soap and water.

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Insecticide Handling - 2

--Observe all precautions listed on the label.

--Know your insecticide and the precautions for using it before you start using the material.

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FOR IMMEDIATE RELEASE

Postemergence Herbicides
Standby For Soybeans

Tenoran (chloroxuron) and 2,4-DB are herbicides on standby for special assignments in soybean fields.

University of Illinois Extension agronomist Ellery Knake says some farmers may look to Tenoran for control of broad-leaved weeds where a preemergence herbicide has not been used or has not controlled broad-leaved weeds.

Although intended mainly to control broad-leaved weeds, Tenoran sometimes controls grasses under favorable conditions if the grasses are small.

Knake says Tenoran should be applied when broad-leaved weeds are less than one to two inches high and grass weeds no more than one-half inch tall.

Velvetleaf is more difficult to control than most broad-leaved weeds and should not be more than one inch tall when treated.

Control with Tenoran has been somewhat erratic. And soybeans may be injured at rates required for weed control, but the injury does not necessarily lower yields. Soybean maturity may be delayed, however.

Knake says 2,4-DB--sold under trade names such as Butoxone SB and Butyrac 175--should be considered an emergency control for cocklebur. The chemical may also give fairly good control of annual morningglory and giant ragweed. But don't expect good control of most other weeds.

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2,4-DB can be applied from 10 days before blooming starts until midbloom. Soybeans may show some early wilting followed by later curving of the stems.

Some stem cracking and enlargement at the base of the plants may occur. Lodging may increase. And if too much herbicide is applied, or if unfavorable conditions exist at treatment time, yields may be lowered.

Weigh the seriousness of the weed problem against possible injury to the soybeans from the herbicide.

Knake emphasizes that labels for these herbicides should be followed carefully. Apply the recommended rates accurately at the proper time.

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FOR IMMEDIATE RELEASE

Think Twice About
Changing Milking Routine

The demands of the spring planting season may tempt dairymen to change their chore schedules or to spend less than enough time to do a thorough job of milking.

"Dairy cows are creatures of habit," reminds Sidney Spahr, University of Illinois dairy specialist. "Cows will conform to most routines without objection. Upset that routine, though, and they show their displeasure by producing less milk."

Delays beyond the usual milking time cause cows to become nervous. Research has shown that high blood levels of the hormone adrenaline in cows that are excited at milking time inhibit normal milk letdown.

Skimping on necessary practices such as proper udder stimulation and removing the milker promptly after milk flow has stopped can lead to mastitis and lower production. Think twice about trying to cut corners during the busy season. Continue to pay careful attention to feeding and management details, Spahr advises.

Recent U. of I. research has shown that intervals between milkings don't have to be equal to get high production. If cows are milked on schedule, intervals as unequal as 9 to 15 hours won't cause a noticeable decrease in production. Even high-producing cows do well on unequal intervals, if they are milked at scheduled times.

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5/16/68

FOR IMMEDIATE RELEASE

Increasing Farm Size Reduces Machinery And Labor Costs

Labor and machinery costs per acre go down as farm size increases. But on farms larger than 400 acres an acreage increase results in only small savings, reports D. F. Wilken, Extension farm management specialist, University of Illinois.

Wilken's conclusions are based on studies of farm business records kept by FBFM cooperators enrolled in Illinois Farm Management Associations. The records cover the 1964-66 period.

Most Illinois farmers can expect to reduce labor and machinery costs from $2 to $6 per acre with the addition of each 100 tillable acres as farm size increases from 180 to 400 acres, Wilken says. The greatest cost reduction occurs with the first 100-acre increase, while the smallest comes on the last 100-acre increase in farm size.

Changes in labor and machinery costs were essentially the same during the 1964-66 period for both northern and southern Illinois farmers.

Machinery and equipment costs included small tools and small livestock equipment, repairs and depreciation, machine hire, gas and oil, truck expense and the farm share of electricity, telephone and auto.

Labor included hired help plus family and operator labor charge at the state's average hired labor rate.

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FOR IMMEDIATE RELEASE

Oat Silage
Stretches Summer Feed

Oat silage is gaining in popularity with many dairymen. Using oats for silage is one way to insure against a feed shortage in the middle of the summer, suggests Ralph Johnson, University of Illinois Extension dairy specialist. Oat silage, made early in the spring, is an excellent supplement for short pastures in mid-summer.

One reason dairymen are interested in the feed is that they can realize higher returns from oats fed as silage than they can by harvesting them as grain, Johnson points out. Also, legumes seeded with oats grow better when the oats competition is removed earlier in the spring as silage.

Oats should be harvested in the boot stage for silage. The material should be wilted to about 50 percent moisture before ensiling. Chop the material as short as possible and use a distributor in the silo. Make every attempt to exclude air from penetrating the silo walls and doors to hold down the possibility of oxidation.

Use a plastic cap or a layer of direct-cut forage material to seal the top of the oat silage to reduce spoilage, unless the silage is to be fed at once.

Dairymen feeding oat silage should also give the herd free access to good hay or pasture at the same time, Johnson advises. High producing cows may not maintain production when oat silage is the sole roughage fed.

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FOR IMMEDIATE RELEASE

Take Care When
Filling Sprayers

What happens when you fill your spray tank, shut off the water and leave the hose in the tank?

If you have a positive shutoff valve, usually nothing happens, says University of Illinois weed specialist Ellery Knake. But with some pumping systems, it's possible to siphon the contents of the tank, including the chemical, into your well.

Knake warns farmers to remove the hose when they finish filling a tank. Or better yet, be certain you have a valve that will prevent siphoning.

Another way to avoid the accident is to fasten the hose to the top of the tank so it doesn't extend into the spray tank.

Knake says that some farmers who have accidentally siphoned chemicals into their wells have been able to clear the water by continuously pumping the well until the water is sufficiently free of the chemical.

But, a little foresight to prevent such an occurrence is the best bet, Knake concludes.

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5/16/68

FOR IMMEDIATE RELEASE

UI Bulletin Answers
Machinery Trading Questions

A new University of Illinois bulletin can help you decide when and how to trade machinery used in corn and soybean production.

Among findings and recommendations reported:

--Don't go overboard on machinery size. Get the smallest machine that will adequately handle your requirements.

--Narrow rows are questionable if you're only growing corn. If you're growing both corn and soybeans, narrow rows will probably be profitable.

--Trade machinery when the annual operating cost of old equipment is greater than the expected average annual cost of new equipment.

For complete details of the machinery study, ask your county Extension adviser for Bulletin 729, "The Economics of Machinery Choice in Corn Production."

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EXCLUSIVE
RELEASES FOR EXTENSION ADVISERS
FROM EXTENSION EDITORS . . . 330 MUMFORD HALL . . . URBANA

FOR IMMEDIATE RELEASE

USDA Land Value Index Useful
But Has Important Limitations

The USDA's index of Illinois farmland values can be useful in making decisions on buying or selling land. But keep in mind it also has three important limitations, says F. J. Reiss, University of Illinois Extension specialist in farm management and land economics.

--First, the index reflects farmland values for the state as a whole. If you apply the index where land values have risen faster than for the entire state, you're likely to underestimate current value. Similarly, you'll overestimate values in areas where prices haven't kept pace with the statewide average.

--The property you're evaluating must have remained relatively the same, physically. The index won't reflect the addition or disappearance of major improvements. How much new field tile, more feed storage facilities or a new house are worth can't be measured by applying the index change to a previously known value. Nor can you measure loss in value--through severe erosion, for example, or abandonment or burning of buildings--by applying the index change.

--Known value of the property must be reasonably close to true value. If for any reason known value is well above or substantially below true worth, that bias will carry over into value arrived at by applying the index.

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Bear in mind these limitations as you consider this example of how the index works to show current value:

Base period for the index is 1957-59. The November 1967 index showed average Illinois farmland values were 152 percent of those for the base period. So land worth $300 an acre in 1957-59 should have been worth $456 an acre in November 1967.

Although necessary computations are somewhat more complex, the index can also be used to show value for years preceding the 1957-59 base period, or for years between the base period and the present, Reiss says.

The index can be the basis for annual adjustments in gross cash rent payable under an all-cash farm lease, with cash rent going up or down in proportion as the index changes.

Use the March index as a basis and cash rent changes can be figured well in advance of due date for the final rent installment, the U. of I. specialist adds.

This use of the statewide index permits rent adjustments in line with agricultural values, even if the farm is in an urban fringe or other area where non-agricultural values dominate, Reiss points out.

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GEB:klf
5/23/68

FOR IMMEDIATE RELEASE

Store Agricultural
Chemicals Safely

The planting season is nearly completed. Store leftover chemicals where children, pets, farm animals and irresponsible people can't get to them.

University of Illinois and Natural History Survey entomologist Roscoe Randell has these suggestions for safe chemical storage:

--Lock chemicals in a separate storage room or in a low-cost wire cage.

--Don't store herbicides close to food, feed or fertilizer. Keep herbicides and insecticides separated so they are easy to distinguish from each other.

--Check for open or broken bags and containers. And be certain they're sealed before storing. Tighten caps on bottles and cans, and check for leaks. Leaky containers should be disposed of safely.

--Always store chemicals in their original containers. If the label is gone, dispose of the chemical. Or, if the label is hard to read, ask your dealer for a new label.

--Never store chemicals in soft drink bottles, honey jars or other containers.

Randell says liquid chemicals should be stored where they can't freeze next winter. Freezing causes some chemicals to crystallize or "salt out." And there's always a chance the container will break if the chemical freezes.

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Some frozen chemicals go back into solution after adequate warming and agitation. But ineffective control may result from using chemicals that were frozen during the winter.

Be especially careful if you must store chemicals in your basement. If a container should break or leak, it could vaporize and spread fumes throughout the house.

Randell suggests storing wettable powders and granular herbicides in a cool, dry place. The area doesn't have to be heated, but be certain the containers are sealed and the material can't accidentally get damp or wet. And don't store dry materials on oily floors.

Eliminate chemical storage problems by closely estimating the amount of each chemical you'll need. Then buy that amount so you don't have chemicals to carry over the winter.

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FOR IMMEDIATE RELEASE

Frequent Grinding Advisable
In Warm Weather

Dairy cows have fussy tastes. They may turn up their nose at feed that is the least bit moldy, musty or rancid. If their appetite slacks off, so does their production.

Odors and off-flavors in feed tend to form more readily as the weather warms, reminds Leo Fryman, University of Illinois Extension dairy specialist. He reminds dairymen that there is more high moisture corn than usual in storage this year. Molds may start growing quickly in high moisture ground grain.

Fryman suggests the most practical solution to this problem is to grind more frequently as temperatures rise. Corn containing as much as 25 to 28 percent moisture should be ground just before feeding. Ground corn with somewhat less moisture may be stored for a couple of days and still be tasty. Dry ground feed can be stored for longer periods of time.

Dairy cows may reject summer feed for other reasons. For example, the addition of ground soybeans to ration containing urea may result in a strong ammonia odor which the cows will find objectionable. Soybeans contain an enzyme, urease, which causes the breakdown of urea, releasing ammonia, Fryman explains.

He also reminds dairymen that rations high in fat may go rancid more readily in hot weather than lower fat rations, so high-fat rations must be ground fresh every few days.

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A medium grind texture is best. Cows don't like finely ground, powdery feed. Powdery feeds also tend to develop off-flavors and odors in milk quicker than coarsely ground feed.

A drop in milk production as the days get hotter can be a clue that your cows are eating less grain. When cows drop in production because of inadequate nutrient intake, act quickly. It is difficult to raise their production after a slump. Keep a close eye on the cows and the feed quality for steadier milk production this summer.

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EXCLUSIVE
RELEASES FOR EXTENSION ADVISERS
FROM EXTENSION EDITORS . . . 330 MUMFORD HALL . . . URBANA

FOR IMMEDIATE RELEASE

UI Agronomist Explains
Weather's Effect On Corn

"So far we're not worried about the yellow corn in many areas of Illinois. We are concerned about the corn's slow growth rate, however, and we're watching it," says University of Illinois Extension agronomist Don W. Graffis.

The corn stays yellow because the weather stays cold and cloudy, he explains. A few days of warm, sunny weather will stir up the plants' photosynthesis processes and the corn will turn green again.

"Fortunately, most of the corn plants have enough food to survive during this stress period," Graffis says. "They can utilize the remainder of the energy in the seed, and despite the weather, the plants still photosynthesize some food."

Farmers with corn standing under water face more serious problems.

Usually corn can survive under water for three days. But because the weather has been unseasonably cool, it may survive four days.

Some corn plantings will have to be torn up and replanted.

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Farmers who want to stick with a cash-grain crop have two choices, Graffis says. They can plant a short-season variety--90- to 95-day corn--as soon as they can get in the field. Or, they can switch to soybeans.

But Graffis points out that short-season corn varieties may be hard to find this late in the planting season. If they replant drowned out corn, they may have to delay harvesting or leave the late-planted corn until it's ready.

If they plant soybeans in the low spots, they'll still have two harvest operations.

Graffis says farmers who need a hay crop can consider seeding one of the "Sudans." Other farmers may be able to use an early maturing grain sorghum if they have drying facilities and a way to market the crop.

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5/31/68

FOR IMMEDIATE RELEASE

Graffis Suggests
Late-Corn Planting Tips

If the recent siege of wet weather caught you with corn still in the bag, consider these recommendations from University of Illinois agronomist Don Graffis.

Graffis says late-planted corn should be seeded at reduced populations to get the highest yield of quality grain.

Here's how, he explains:

--Corn planted from mid- to late-season grows taller than early planted corn. Because the extra height causes increased shading between plants, fewer plants per acre form the same amount of shading in a field.

--Reducing plant population also reduces the possibilities of moisture, light or nutrient stress. A corn plant under stress needs more time to tassel and silk than does a similar plant free from stress. Because the grain maturation date depends on the time of silking, late-planted corn should silk as early as possible to reduce the chance of immature and high-moisture corn at harvest time.

--Early-planted corn develops deeper root systems than does corn planted late. A shallow root system makes the corn plant more susceptible to moisture stress. A low plant population will suffer less than a high population in dry weather.

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Late-Corn Planting Tips - 2

If you still have corn to plant--or if you're replanting flooded corn--decrease the plant population, compared to normal planting, according to the hybrid type you're growing, its growth characteristics and its sensitivity to stress factors, as well as the soil type and the expected weather.

Hybrids designed for high population plantings--24,000 to 28,000 plants per acre when planted early--should probably be planted at a rate of 18,000 to 22,000 plants per acre when planting is delayed 30 to 45 days.

Usually, there's less yield response from narrow rows with late-planted corn than with early-planted corn. Sticking with wider row widths will logically reduce plant population.

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FOR IMMEDIATE RELEASE

Test Demonstration Farms
Show Net Worth Increase

Average net worth increased from $26,653 to $42,005 on 42 of 63 Illinois farms enrolled in a test-demonstration program involving the "whole-farm" approach to better farming.

The demonstration program is a joint effort of the University of Illinois' Cooperative Extension Service and the Tennessee Valley Authority's Division of Agricultural Development. The latest evaluation of results is for the period from 1953 to 1965.

Test-demonstration activities began in Illinois in 1937 and primarily involved testing and demonstrating phosphate use on grasslands.

The whole-farm approach initiated in 1953 added other areas of emphasis to that of balanced fertilization. These included crop selection, drainage, livestock improvement, buildings, utilization of labor and machinery, financing and farm family living.

All counties participating in the Illinois program are in southern Illinois' claypan areas, except for Livingston County. Drainage is a problem in the southern part of Illinois. Soils are wet in spring, droughty in summer, low in available potassium and nitrogen, and medium to low in phosphorus. This combination poses definite soil fertility and farm management problems.

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In addition to the increase in average net worth of farms, U. of I. Extension economists report farmers participating in the test-demonstration program have:

--Used balanced fertility programs and influenced many of their neighbors to do likewise.

--Used recommended crop and livestock practices.

--Increased their ability to manage and repay borrowed money.

--Used reliable sources of information.

--Participated actively in school, church, farm organization and other community institutions.

--Improved family living conditions. Thirteen built new homes, 13 remodeled, 10 added running water and bathrooms and 7 added other rooms.

A group of 43 test demonstrators evaluated for the most recent five years of the test period showed these accomplishments:

--Average earnings increased from $5,650 to $8,236 per per farm.

--Livestock returns over feed cost rose by 20 percent.

--Corn yields increased 34 percent, wheat 20 percent.

--Total farm production increased by $6,000 over the five-year period.

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GEB:klf
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For A.M. Release
Tuesday, June 4

NOTE TO ADVISERS: Don't use until June 4, please. The material is from a speech being given the night of June 3. Also, a slightly different version of this release is being mailed to the farm dailies, with a June 4 release date specified.

Direct New Industry Benefits
Small For Commercial Farmer

Most farmers won't benefit directly when new industry moves into their communities. And for the commercial farmer, chances for direct benefits are even less, says John T. Scott, Jr., associate professor of agricultural economics, University of Illinois.

Here's how Scott explained his viewpoint to fieldmen attending the Illinois Farm Management Association conference near LaSalle:

Industrial development does increase off-farm work opportunities. But more and more prospective employers want full-time, rather than part-time workers. So the farmer who accepts full-time employment off the farm then becomes a part-time farmer.

New industry may also provide "windfall" gains from higher land values. However, such benefits are likely to go only to the landowner and will be the last gain he realizes on his land.

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Greater availability of part-time work off the farm will be important to those unable to expand or change as necessary to maintain farm income. Those farmers moving toward full-time work off the farm will first try to continue farming as usual. But they'll find it necessary to drop some enterprises and hire more work done. As non-farm income and job satisfaction builds, they probably will quit farming entirely--although they may continue to live in a rural area.

The commercial farmer, faced with higher wage rates and a tighter labor market, will have to substitute even greater amounts of capital for labor. Farm size may be limited to what can be operated with little or no labor.

Grain farming, where greatest substitution of capital for labor has been made, will receive even more emphasis in Illinois.

Livestock production in northern Illinois, one of state's two major areas for that enterprise, will show a relative decline.

Non-farm workers may become a source of labor for part-time farm jobs. This may be helpful in the operation of mechanical equipment and for seasonal labor, but won't offer much help for the general livestock farm.

Landlord-tenant conflicts as to how the tenant spends his time may increase, particularly if farm size is insufficient to provide the tenant all the income he needs.

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5/31/68

FOR IMMEDIATE RELEASE

Knake Discusses Rain's
Effect On Herbicides

How has the recent "duck weather" affected herbicide performance?

University of Illinois Extension weeds specialist Ellery Knake says that with normal seedbed preparations and fairly loose, open soils, herbicides usually move into the soil with the first significant rainfall.

The excessive rains may have moved the more soluble herbicides such as Randox deeper than the zone where they work best.

Less soluble herbicides such as Ramrod, and especially Atrazine and Treflan, probably weren't moved out of their effective zones.

Knake points out, however, that factors other than moisture--such as soil texture and structure, temperature and degree of adsorption onto the soil complex also affect herbicide loss. Although quite insoluble, Treflan may be degraded and decrease in effectiveness under wet conditions.

And as soil moisture moves toward the surface and evaporates, some herbicide may move upward with the moisture. Some herbicide might relocate in the effective zone, but some may go with the water vapor into the air.

Farmers will have to depend on hindsight to determine how effective their herbicides are. Knake says, "If their preemergence herbicides work, they can count their blessings."

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"If the weeds start growing, they should cultivate as soon as possible."

When the sun comes out, crusting may be a problem on some fields. The rotary hoe is still one of the best implements for breaking crusts and killing early weeds.

The row cultivator is one of your next best lines of defense.

Postemergence herbicides can be especially helpful on large acreage or where it's too wet to cultivate.

Farmers who haven't used Atrazine and don't think cultivation or 2,4-D will solve their problems can consider Atrazine and oil.

Farmers who used a half rate of Atrazine with Ramrod preemergence on dark soils can consider another half rate of Atrazine and oil, if it looks like Ramrod isn't controlling grass. They'll need to weigh the cost against possible loss the weeds may cause.

But for most broadleaved weeds, 2,4-D is still the best postemergence. Atrazine plus oil can help on both broadleaved and grass weeds less than 1 1/2 inches tall. Adding the special oil to Atrazine can increase weed control but may also increase the chance of injury to corn under some growing conditions.

Lorox or Dowpon can be used later as directed postemergence sprays in corn. They require special equipment and a lot of care in application.

Aerial applications of Atrazine and oil may help in emergency situations where fields are wet and it looks like the weeds will get too large for cultivation.

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EXCLUSIVE
RELEASES FOR EXTENSION ADVISERS
FROM EXTENSION EDITORS . . . 330 MUMFORD HALL . . . URBANA

FOR IMMEDIATE RELEASE

Aldrich Discusses
Wet Weather N Losses

Nitrogen losses caused by the recent wet weather will be small where anhydrous ammonia or ammonium fertilizer was applied a few days before the rainy period. But in ponded areas where the nitrogen was applied early enough to give it time to convert to nitrate or nitrite forms, the losses may be as high as 90 percent.

University of Illinois agronomist Sam Aldrich says the extent of the nitrogen losses depends on these factors: the time when the nitrogen was applied, the chemical form of the nitrogen and the amount of leaching and denitrification.

Aldrich explains that nitrogen losses occur only through leaching and denitrification. And only the nitrate and nitrite forms of nitrogen can be lost through these processes.

How quickly nitrogen converts to nitrate and nitrite forms depends on the time when the fertilizer was applied, the form applied and soil temperatures.

Assume that the eight-inch soil temperatures averaged 55° F. for the three weeks before May 15, 50° F. for the fourth week and 40° F. for the fifth preceding week.

If you applied 120 pounds of anhydrous per acre a week before your soils became flooded or saturated, only about 30 percent of your nitrogen would have changed to the nitrate form.

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If your application was two weeks before, an estimated 55 percent would be in the nitrate form; three weeks, 65 percent; and four or more weeks, 70 percent.

If you applied 200 pounds of anhydrous per acre, these percentages may have nitrified: one week before saturation, 20 percent; two weeks, 35 percent; three weeks, 45 percent; and four or more weeks, 50 percent.

Ammonium nitrate nitrogen applications would result in these percentages in nitrate and nitrite forms: one week, 73 percent; two weeks, 83 percent; three weeks, 88 percent; and four or more weeks, 90 percent.

Solutions containing ammonium nitrate as one of the ingredients would be expected to average 5 to 10 percent less than ammonium nitrate alone. And other nitrogen fertilizers average about 15 to 20 percent less than ammonium nitrate.

What has happened to the nitrogen in nitrate form? Aldrich says leaching resulting from the wet weather has probably not moved large amounts of nitrates beyond normal midsummer rooting depths or into tile lines, except on sandy soils.

In central Illinois, the soil was saturated for most of the rainy period. So, water entered clay and silt soils too slowly for them to absorb all the water during hard rains. Most of the water from the recent rains ran off the surface to low spots or creeks and ditches and did not move nitrates down or out of the soil.

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The water that did enter the soil did not move nitrates deeper than 2 1/2 to 3 feet. And, corn normally will feed that deep before it reaches the tasseling stage. If nitrogen reaches the tile line it is, of course, lost.

Aldrich reminds farmers that throughout the remainder of the growing season water will move toward the surface. And as the water evaporates, nitrates will also move upwards.

In nonponded areas on silt and clay loam soils, an estimated 10 to 25 percent of the nitrate and nitrite nitrogen will not be recoverable.

But where five or six inches of rain fell on sandy soils, little nitrate will be left in the rooting zone. And because the nitrate will not be available to roots until late summer, a sidedressing will probably pay.

Except on sandy soils, denitrification has been the cause of most nitrogen losses. Aldrich estimates that areas ponded for 5 days have suffered a 10 percent nitrate-nitrite loss from denitrification alone. Areas ponded for 10 days have probably suffered a 25 percent loss from denitrification.

And he says that where water has stood for more than 10 days, it is safe to assume that most of the nitrate and nitrite nitrogen has been lost, one way or another.

Farmers need to estimate their nitrogen losses in each field and decide whether to sidedress. Aldrich says farmers with a corn-soybean cropping system who have stands of at least 20,000 plants per acre planted before the rainy period, should consider sidedressing if the weeds are under control and the plants look vigorous.

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He suggests sidedressing to bring the total nitrogen up to 225 to 250 pounds per acre in addition to the nitrogen estimated to have been lost by denitrification or leaching.

If the crop outlook is less favorable, or if farmers are following another cropping system, the most profitable rate of nitrogen will be less.

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6/6/68

FOR IMMEDIATE RELEASE

Weed Control For Soybeans

If you control weeds during the first three to five weeks after soybean planting, the soybeans usually compete well with most of the later growing weeds.

University of Illinois agronomist Ellery Knake lists rotary hoeing as a popular method for weed control. He advises using the rotary hoe after the weeds germinate, but before or soon after they emerge.

For best results, drive at least eight miles per hour and weight the hoe to thoroughly stir the soil.

Use the row cultivator once or twice after you rotary hoe. Drive the cultivator fast enough to throw soil into the row and smother small weeds.

Although narrow-row soybeans provide more shade and compete better with weeds, there is more row area where weeds are hard to control. So weed control is as important for narrow-row beans as it is for wide-row beans.

If you've used a preemergence herbicide that doesn't appear to be giving good control, use the rotary hoe while the weeds are still small.

Some preemergence herbicides for soybeans occasionally cause injury to soybean plants, Knake points out. But, the weed control benefits given by the herbicide usually offset any bad effects on the soybean plants, he adds.

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Knake stresses the importance of using high-quality, disease-resistant soybean varieties where you use herbicides. Soybeans that don't begin with vigorous growth appear to be more subject to herbicide injury than others. And soybeans that are injured by herbicides are more likely to be attacked by disease.

Knake says that currently-used soybean herbicides haven't seriously affected follow-up crops in the rotation.

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6/6/68

FOR IMMEDIATE RELEASE

Christmas Tree Growers
To Hold Spring Meeting

A trip to the Sinnissippi Forest highlights the Illinois Christmas Tree Growers Association spring meeting at Dixon.

The two-day meeting begins on Friday, June 14, at the Lincoln Lodge Motel in Dixon and ends Saturday, June 15.

Friday's schedule of events includes swimming, committee meetings and later in the evening, a banquet and business meeting.

On Saturday, members will visit the Sinnissippi Forest where they will see several demonstrations, including a mechanical tree pruner, a Scotch pine Christmas tree culture, a 65-year-old white pine plantation, various manufacturing processes and a display of pine artistry.

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6/6/68

FOR IMMEDIATE RELEASE

Chemical-Use Records
Serve As Management Tool

Chemical-use records can be a helpful management tool.

Roscoe Randell, University of Illinois and Natural History Survey entomologist, says that chemical-use records help you remember what chemical gave the control you wanted and what chemical didn't quite do the job.

In this way, the records serve as management tools. They also protect you if you're questioned about possible residues.

A chemical-use record should include the following information, Randell says:

--Size and location of the treated acres.

--The crop treated, the variety and the stage of the crop's development.

--The exact time of treatment and the weather conditions that day.

--Pests or weeds to be controlled and the type and extent of the damage.

--Chemical used, including active ingredients and the type of formulation.

--Method of treatment, equipment used and operator's name.

--Effectiveness of control.

--Harvest date.

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6/6/68

FOR IMMEDIATE RELEASE

Should You Replant Corn?

Will it pay to replant a poor stand of corn?

University of Illinois agronomists Sam Aldrich and Walter Scott say if the stand is a near-failure, the decision is easy. But if the stand is spotted or about 70 percent complete, consider these points before you replant:

--Since the optimum planting date is already past, replanted corn will yield less--maybe 20 to 30 bushels per acre less.

--Replanting costs money. Seed, fertilizer and labor costs will be $10 to $15 per acre, not counting seedbed preparation costs.

--Late-planted corn should not be planted as heavily as early-planted corn. The optimum plant population now is lower than the optimum population four weeks ago. The optimum at this late date may not be too different from your existing stand.

--Replanting doesn't guarantee a good stand. The new seedlings will be subject to hazards--such as insects and drought--just as the first seeding was.

--Finally, you increase the risk of harvesting problems resulting from late-maturing, late-planted corn.

The University agronomists reemphasize that when corn stands are about 70 percent of what was anticipated--14,000 plants per acre instead of 20,000 plants--it's risky to replant.

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It looks like you should be able to replant and raise your population to a more economical level. But when you start checking, you have several costs and risks working against you, they say. The "high" populations aren't as "high" as they were four weeks ago.

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6/6/68

EXCLUSIVE
RELEASES FOR EXTENSION ADVISERS
FROM EXTENSION EDITORS . . . 330 MUMFORD HALL . . . URBANA

FOR IMMEDIATE RELEASE

Special to Extension Advisers, Youth

Local Members To Attend State 4-H Club Week

A delegation of _____ _____ _____ County
(number) (county)
4-H'ers will attend the 1968 State 4-H Club Week program at the University of Illinois, Urbana, June 18-21.

_____ County Extension Adviser _____
(name)
reports that special interest sessions will be a new feature of this year's program. The subjects to be discussed include: Making Your Camera Talk, Smoke--Alcohol--and You, International Opportunities, Flower Arranging for Fun and Understanding Yourself. Delegates may choose which two of the eleven sessions they wish to attend.

The 4-H "Democracy Game," a popular new feature last year, will be included again this year. By playing the game, 4-H'ers learn about government and the legislative decision-making processes.

Marilyn Van Derbur, United Airlines youth speaker, will discuss the question "Are You Willing to Pay the Price?"

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Also on the program are Jean Palumbo, model and beauty consultant, who will talk on "Be One of the Nicest People You Know," and Ver Lynn Sprague, director of the Illinois Sesquicentennial Commission, who will discuss the early history of Illinois.

A session on career opportunities will acquaint the delegates with the many areas of specialization at the University of Illinois and in the state junior colleges.

In addition to attending the annual barbecue, parties, song fests and dances, the group will attend a concert performed by members of the State 4-H Chorus.

Attending from _____ County are:

_____ (name), _____ (address); _____ (name),
_____ (address); _____ (name), _____ (address).

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EXCLUSIVE
RELEASES FOR EXTENSION ADVISERS
FROM EXTENSION EDITORS . . . 330 MUMFORD HALL . . . URBANA

FOR IMMEDIATE RELEASE

Graffis Clears Planting Dilemma;
Corn Or Soybeans?

Planting corn in mid-June is risky business. You're usually wiser to plant soybeans unless you have a good reason to plant corn.

University of Illinois agronomist Don Graffis explains this way:

--The best time to plant corn in southern Illinois is mid-April; in central Illinois, late April to early May; and in northern Illinois, early May.

--If you're planting corn in mid-June, about 45 days after the "best" time, you can expect to get about 65 percent of what would have been a normal yield.

--At a 65-percent yield level, your planting and other production costs will probably wipe out your profits.

Graffis says farmers who have already applied atrazine, or those who have followed a continuous atrazine program, may need to stick with corn. And farmers who have made heavy nitrogen applications, as well as those who need corn for their livestock program, may also have to plant corn.

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"Our advice to those farmers is to plant early-season hybrids if they plan to store ear corn or dry shelled corn. The early varieties yield less, but they're less likely to be immature at harvest time," Graffis says. "Farmers storing silage or wet, shelled corn should plant a mid-season variety, because they'll outyield the early varieties."

Soybeans are a safer bet than corn, Graffis emphasizes. "It's too late to get top soybean yields, but you'll still get 80 to 85 percent of what you'd have harvested if you'd planted earlier in the season."

Despite the expected yield reduction, you'll still make some profit. And with soybeans, maturity at harvest probably won't be a problem. Soybean maturity is delayed one day for every two to three days planting is delayed. Soybeans tolerate early frosts better than corn.

If you switch to soybeans, consider these points:

--Go to narrow row plantings. Drill them if possible. Good seedbed preparation at this late date will generally take care of weed problems. Soybeans will develop rapidly and provide stiff competition for weeds. If your field has a history of foxtail infestations, however, you may want to use an herbicide or plant 24-inch rows. Then in some cases you may want to follow both practices to control grasses.

--Plant a mid-season variety for your area--not an early variety. Late-planted early varieties grow short and yield poorly.

--Apply phosphorus and potassium according to soil tests, despite the late planting date.

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6/13/68

FOR IMMEDIATE RELEASE

More Protein, More Milk
From Early-Cut Sorghum-Sudans

It is easy to see why agronomists advise cutting sorghum-Sudangrass crosses while the crop is just 20 to 30 inches tall. Plants taller than that mature rapidly and lose much of their digestibility and protein value in the process.

Feeding trials conducted by University of Illinois dairy scientists the past two years substantiate these recommendations.

During a one-month feeding period in 1966, the crop's digestible protein level dropped from 16 percent to 3.4 percent--a serious loss of 79 percent digestible protein. This may explain why dairymen have expressed disappointment in the performance of their cows on these new forages.

Sid Spahr, the U. of I. dairy scientist who has conducted the feeding trials, reports that subsequent studies in 1967 confirmed these losses. Some sorghum-Sudans were planted June 5 and fed from July 18 to August 18. As the crop matured that month, crude protein levels dropped 71 percent.

Sorghum-Sudangrass crosses planted late in June and fed from July 18 to August 18 had an even greater--75 percent--reduction in crude protein from start to finish. The first cutting, made less than a month after seeding, tested 26.1 percent crude protein. By mid-August, crude protein levels were down to 6.5 percent.

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Maturity affects digestibility, too. Spahr reports that digestibility of the feed's energy dropped from 76.9 percent early in the season to only 55.5 percent a month later.

So, rapid loss of crude protein and digestibility make early cutting of sorghum-Sudangrass crosses imperative for top animal performance.

Younger crops may not yield as much on a tonnage basis. From a nutritive standpoint, though, sorghum-Sudan will never be better.

Keep in mind that crops cut early recover quicker. This often amounts to an extra cutting over the total season.

RC:bf
6/13/68

FOR IMMEDIATE RELEASE

Record Number Of Hogs
On Test In Illinois

A record 751 boars and slaughter animals are currently on test at the seven swine-testing stations in Illinois.

G.R. Carlisle, University of Illinois Extension swine specialist, reports that 135 breeders have placed 148 boars and 603 slaughter hogs on test. For the first time in recent years, Duroc breeders lead all breeds in numbers, with 219 animals on test. There are also 179 Hampshires, 105 Chester Whites, 101 Yorkshires, 78 Poland Chinas, 45 Spotted Poland Chinas, 16 Landrace and 8 Berkshires.

Six of the seven stations have scheduled fall sales. Dates for these sales are:

August 19--Forrest station, sale at Pontiac 4-H Fairgrounds

August 24--Western Illinois station, sale at Western Illinois University Farms

August 30--Martinsville station, sale at Martinsville Fairgrounds

September 7--LaMoille station, sale at Bureau County Fairgrounds

September 13--Southwestern station, Mascoutah

September 13--Western Illinois station

September 16--Melvin station, Melvin Fairgrounds

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RC:klf
6/13/68

FOR IMMEDIATE RELEASE

Avoid Haying Accidents

The hay harvest claims more lives through accidents than does the harvest of any other crop, says O. L. Hogsett, University of Illinois Extension safety specialist.

Frequently involved are balers, field choppers and mowing machines, all of which require good judgment and know-how on the part of the operator. Hogsett suggests these common-sense rules to help make haying safe:

--Shut off power before cleaning, oiling or adjusting any power-driven machine.

--Keep power take-off and other safety shields in place. They are there to protect you.

--Don't permit extra passengers on tractors or loaded hay wagons. Falls from wagons, mows, silos and stacks occur too frequently.

--Handle your tractor with care, particularly on public roads and when raking and mowing at high speeds. Packing silage in trench silos with tractors has proven to be hazardous. Operators should be well qualified and aware of the danger.

--Even pitchforks and hay hooks can cause painful injury. Handle them with care.

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GEB:klf
6/13/68

FOR IMMEDIATE RELEASE

SMV Emblem Cuts
Costly Accidents

Learn what the SMV emblem is all about--it may save your life, says O. L. Hogsett, University of Illinois safety specialist.

The letters S-M-V stand for Slow-Moving Vehicle. The SMV emblem is used to identify vehicles designed to travel 25 miles an hour or less.

The emblem is usually visible, day or night, at about 500 feet. It's a fluorescent, yellow-orange, equilateral triangle, 16 inches wide and 14 inches high, with one point up.

If you're operating a slow-moving vehicle on a public road, a well-placed SMV emblem may keep the operator of a speedier car or truck from overrunning you.

And if you're the car or truck driver instead, keeping a sharp lookout for the SMV emblem protects both you and the operator of a slow-moving vehicle from injury and possible death.

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GEB:klf
6/13/58

FOR IMMEDIATE RELEASE

Trend Is To Elevators
For Drying And Storing

The long-run trend will be toward elevator conditioning and storage of shelled corn. In general, elevators have the potential to condition and store corn better and cheaper than it can be done on the farm, says L. F. Stice, Extension grain marketing specialist, University of Illinois.

But the U. of I. economist also notes this: Currently, farmers may for various reasons want to do their own drying and storing. Some want and can afford the necessary facilities. Some have no choice. And some prefer the convenience of on-farm storage--either to maintain control of the corn or because they believe they can dry and store as economically as the elevators.

In the face of this interest, Stice suggests that farmers "try to hold investments to a minimum and use fast depreciation schedules." Rapid changes now occurring in grain production and marketing make it difficult to judge risks of obsolescence for any fixed investment. And under such circumstances, caution is in order as to how much risk capital goes into one type of equipment, he warns.

Stice sees the extremely wet corn years of 1966 and 1967--along with more field shelling--as having stimulated interest in on-farm drying and storing facilities. The natural economic reactions to the shortages in corn-drying equipment in those years were lower at-harvest bids and higher moisture discounts and drying charges by the elevators.

-more-

Even so, many producers still say they'd like to deliver their field-shelled corn to the elevator at harvest--if the elevators were "geared up to receive, condition and store it at 'reasonable' levels." The UI economist notes that since expanding, some elevators have doubled their annual grain receipts and found drying a profitable part of the business.

That further expansion in drying and storage facilities is needed is obvious. At least a third of the 1967 corn crop still was harvested as ear corn. This will go down, and within a few years all market corn will be field-shelled, Stice predicts.

Meanwhile, the grain trade is making a concerted effort to modernize for more efficient handling of the field-shelled corn, he notes.

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GEB:bas
6/6/68

FOR IMMEDIATE RELEASE

Note To Advisers:

This release can be localized in the event one or more dairymen on the attached list are from your county, or are signed to judge some of your dairy events this summer.

Local Dairy Breeders Sharpen
Judging Skills For Summer Season

_____
(Name and address)

_____ was (were) among 35 prominent Illinois dairymen who accepted the invitation of the Illinois Purebred Dairy Cattle Association and spent a day in "spring training" to sharpen their dairy judging skills.

The refresher course, held at the University of Illinois dairy science farm in Urbana, was designed to train these men in judging all breeds. Most of those attending will be judging local shows, county fairs and junior competition around the state this summer.

The judging conference, first of its kind held in Illinois, reviewed judging procedures and pointed out breed differences.

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RC:klf
6/13/68

ALL BREEDS JUDGING CONFERENCE FOR DAIRY JUDGES

LIST OF PARTICIPANTS

JUNE 6, 1968

AYRSHIRE BREED:

Frank Belt, Morrison; Charles Laury, Danville; and Dr. John P. Ostrander, Union.

BROWN SWISS BREED:

John Ellis, Penfield; Jon Ellis, Princeton; Leo Johnson, Sterling; Lloyd Simon, Princeton; and Jack Stevens, Trivoli.

GUERNSEY BREED:

Larry Mohr, Saybrook; John Ostrodka, Sandoval; Orie Roeschley, Flanagan; and Audrey Wagner, Cissna Park.

HOLSTEIN BREED:

Bob Butz, Kankakee; Ron Debatin, Pocahontas; Dean Dunn, North Aurora; Morris Ewing, Cary; W. D. Goeke, Hampshire; Glenn Holmes, Peotone; Bob Howard, Dundee; Russell Mathews, Morris; Calvin Meyer, Peotone; Earl Moeller, Effingham; Joe Platz, Sigel; Kent Ryan, Fairbury; J. George Smith, Oswego; Ken Swanson, Hampshire; A. C. Thomson, Burlington; and Pat Williams, Huntley.

JERSEY BREED:

Betty Claudon, Chenoa; Earl Slutz, Princeton; and John Trimble, Trimble.

MILKING SHORTHORN BREED:

George Baxter, Newman; L. R. Bloomfield, Ashland; Victor Stoll, Chestnut; and Richard Stoll, Chestnut.

EXCLUSIVE
RELEASES FOR EXTENSION ADVISERS
FROM EXTENSION EDITORS . . . 330 MUMFORD HALL . . . URBANA

FOR IMMEDIATE RELEASE

Beef Housing And Equipment
Handbook Useful Planning Aid

If you anticipate making any improvements in housing or handling facilities for your beef cattle, you will find the new Beef Housing and Equipment Handbook, developed by the Midwest Plan Service, a useful addition to your idea file.

This newly revised 64-page book is packed with feedlot planning suggestions. Topics include confined housing, ventilation and waste disposal. In addition, it spells out how to build some 35 pieces of livestock handling equipment--including plans for work chutes, feedbunks, creep feeders and fences.

As a bonus, the book lists more than 140 plan pamphlets which you can order for more specific details on a variety of equipment and building subjects.

The collection of data and charts on silo capacities, feed information, building materials and concrete paving makes the booklet a worthwhile addition to your farm library.

We have a limited supply of the Beef Handbook on hand, but can order more. The book sells for $1. Stop in and ask about it.

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(Not for publication: The cost of $1 includes 5¢ for state tax. No additional tax charge should be made by your office.)

DGJ:RC:klf
6/20/68

EXCLUSIVE
RELEASES FOR EXTENSION ADVISERS
FROM EXTENSION EDITORS . . . 330 MUMFORD HALL . . . URBANA

UI Specialist Gives Guidelines
On New Or Used Tractor Purchase

Whether to buy a new or used tractor depends on how many hours you'll use it per year, how good a judge of used equipment you are and what your capital investment situation is, says R. B. Schwart, University of Illinois Extension specialist in farm management.

Here's how Schwart sees the question:

If you'll use the tractor less than 300 hours a year, a good used one almost certainly is your best buy--if you can judge probable maintenance requirements accurately.

But if you'll keep the machine busy 800 hours a year, it's about equally certain you should buy a new one.

Exception: If you're particularly short on capital, buying a used tractor may still be more logical, even if you use it 800 hours a year.

At various stages between 300 and 800 hours of use per year, you may decide to buy a new rather than a used tractor. This will depend on how much investment capital you have and how important the "satisfaction and risk" differential is to you.

Schwart analyzed per-hour costs for a new tractor and for used tractors of comparable size, purchased when one and four years old, respectively. These costs included depreciation, interest, taxes, insurance and repairs. Fuel and oil costs were not included, since it was assumed these would be about the same for both new and properly maintained used equipment.

-more-

For tractors kept on the farm six years and used 300 hours per year, Schwart figured per-hour cost at $2.55 for the new machine, $2.14 for the one-year-old tractor and $1.88 for the one purchased when four years old.

Tractors kept six years and used 500 hours per year showed per-hour costs of $1.67 for the new machine, $1.46 for the one purchased when a year old and $1.34 for the one bought when four years old.

When kept six years and used 800 hours annually, the per-hour costs were $1.11 for the new tractor, $1.04 for the one purchased when a year old and $1.05 for the one four years old at purchase.

The small per-hour difference in cost at the 800 hours a year use-level makes the new machine the obvious choice for most farmers because risk of costly breakdowns is less.

But the farmer whose capital resources are extremely limited may not be able to justify even that small a "satisfaction and risk differential."

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GEB:bas
6/27/68

Beef And Dairy Farmers Urged
To Improve Management Skills

Note to Illinois beef and dairy farm operators: Management ability with livestock has more influence on returns than does size of the farm you're operating.

That's what D. F. Wilken, University of Illinois Extension specialist in farm management, says after analyzing 1964-66 records of some 504 beef and dairy operations in the state.

Here are the highlights of Wilken's report:

--Beef and dairy farm returns were more variable over a farm size range than was true for grain and hog farms--and usually were lower for the same size farm.

--Dairy farms and the smaller grain and beef farms in northern Illinois showed lowest returns to farm operators for use of labor and capital resources during this period.

--Grain farmers may try to improve their incomes by adding acres. But livestock farmers, who may not be able to obtain more land, should make their existing enterprises more efficient before adding to herd size.

Lowest return on investment for northern Illinois beef farms was 4 percent for farms under 180 acres. Return to management in this category was a minus $689. On larger farms, return on investment ranged from 5.93 to 6.76 percent, while management returns were from $2,463 to $9,608.

-more-

For southern Illinois beef farms, highest returns to management and best percentage returns on investment were on farms in the 260-339 acre group. These earned 10.03 percent on investment and returned $5,878 to management.

A greater total investment resulted in a higher total return on investment for southern Illinois beef farms of 500 acres or more. But the investment earned only 7.10 percent in this group and return to management was $5,774--slightly less than management return in the 260-339 acre class.

Percent earned on investment for northern Illinois dairy farms ranged from 4.91 to 6.20, while lowest returns to management were $589 and highest only $3,261.

Southern Illinois dairy farms showed somewhat higher returns on both investment and management. Earnings on investment ranged from 6.81 to 7.76 percent, while returns to management ran from $1,226 on the smaller farms to $4,486 on the larger ones.

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GEB:bas
6/27/68

Both Returns and Risks
Increase With Farm Size

Illinois grain and hog farmers can increase total returns by adding to farm size, but added returns must be weighed against additional risk and greater management requirements.

This is the conclusion drawn by D. F. Wilken, Extension specialist in farm management, University of Illinois, based on evaluation of 1964-66 records of some 944 Illinois farms.

Wilken divided the farms into six size categories, ranging from a low of 150 acres to a high of 800 acres. Farms where less than half the crops produced were fed to livestock were considered to be grain farms; those where more than half the crops were fed were designated as livestock farms. Only those livestock farms with hogs as the major enterprise were included in the evaluation.

Separate studies were made for northern and southern Illinois.

Wilken found total investment per farm was about 2 1/2 times greater on farms in the 500-649 acre range than for those of 180 to 259 acres. He also determined that management returns were 3 1/2 to 4 times greater on the larger farms, except for northern Illinois hog farms where returns to management increased only at the same rate as total investment.

In both northern and southern Illinois, higher earnings for the larger grain farms are providing strong incentives for good farm operators to enlarge existing farm units, Wilken said.

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The U. of I. specialist found hog farms provided best returns on capital invested. These returns indicate investment opportunities in livestock facilities for operators who can manage hogs but who are not able to acquire more land.

While hog returns in the future may not equal record highs of 1965 and 1966, long-time records show hogs are a profitable enterprise for above-average producers, he noted.

Northern Illinois grain farms showed investment returns ranging from 4.18 percent on farms under 180 acres to 7.52 percent for those averaging just over 800 acres. Dollar returns to management for those same farms ranged from a minus $161 in the smallest category to $16,354 for the largest group.

Investment return on southern Illinois grain farms ranged from 7.34 percent in the 180-259 acre group to 10.62 percent on those averaging almost 900 acres. Total dollar return to management went from $1,894 on the small farm group to $15,551 for the largest category.

Highest percentage return on northern Illinois hog farms was 9.52 percent in the under-180 acres category. Second, with a 9.44 percent return, were farms in the 260-339 acre class. Three other farm sizes showed 8.4, 8.53 and 8.95 percent returns. Total returns to management began at $5,389 for the smallest farm category and went on up to $15,190 on those in the 500-649 acre class.

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Highest returns on southern Illinois hog farms--from both percentage and total returns standpoints--came on a group which included all farms over 500 acres and averaged 705 acres. This group showed a 13.53 percent investment return and a dollar return to management of $15,788.

Wilken's analysis of other southern Illinois hog farm sizes showed an 11.22 percent return on investment and a return to management of $3,428 for farms under 180 acres; 10.54 percent and $4,290 in the 180-259 acre class; 12.06 percent and $6,480 for the 260-339 acre group; and 11.59 percent and $8,236 in the 340-449 acre category.

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GEB:bas
6/27/68

EXCLUSIVE
RELEASES FOR EXTENSION ADVISERS
FROM EXTENSION EDITORS . . . 330 MUMFORD HALL . . . URBANA

NOTE TO ADVISERS: YOU CAN USE THIS FILL-IN STORY TO RECOGNIZE JUNIOR LEADERS WHO WILL ATTEND THE JULY 22-26 LEADERSHIP CONFERENCE AT THE 4-H MEMORIAL CAMP. YOU CAN MAKE THE STORY STRONGER BY LOCALIZING AS MUCH AS POSSIBLE AND BY USING PICTURES OF YOUR DELEGATES, IF AVAILABLE.

_____ County Names Delegates
To 4-H Leadership Conference

Delegates from _____ county will be among some 300 Illinois 4-H youth attending the 29th annual Junior Leadership Conference at Monticello July 22-26. The sessions will be held at the 4-H Memorial Camp.

Representing _____ county will be _____
(ADD NAMES
_____
AND ADDRESSES OF YOUR DELEGATES HERE, PLUS BRIEF COMMENT ON
_____
WHY AND HOW SELECTED, IF APPROPRIATE.)

Primary function of the conference--which this year has as its theme "Up, Up and Away!"--is to develop leadership among the 4-H movement's 15- to 19-year-old members.

Registration will begin at 1 p.m. Monday, July 22, at the camp's assembly shelter. Events to follow will be planned and directed by various committees, with each delegate assigned to one of those groups. General supervision is by Extension 4-H staff members and a 10-member "continuation committee" elected at last year's sessions to advise on 1968 activities. A similar committee will be named this year to assist with the 1969 conference.

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Scheduled to give the opening address at 9 a.m. Tuesday, July 23, is The Rev. R. Benjamin Garrison, senior minister-director of the Wesley United Church and Wesley Foundation, Urbana. He will speak on "The Square Root of 4-H."

Miss Dorothy Emerson, citizenship and leadership consultant with the National 4-H Foundation, Washington, D.C., will address delegates twice during the conference. Her topic for Wednesday, July 24, will be "What's Going on Here?" and she will speak the following day on "What the World Needs Now."

Del Dahl, Extension communications specialist at the University of Illinois, Urbana, will speak at the concluding assembly on Friday, July 26, on "Keep the Ball Rolling."

Throughout the conference special-interest discussion groups will consider topics and problems brought to their attention by speakers and other participants. Each delegate will have the opportunity to take part in four of the 12 discussion groups planned.

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GEB:klf
7/10/68

Junior State Fair Dairy Exhibitors
Eligible For Production Awards

Junior dairy exhibitors showing Illinois-born dairy cattle at the 1968 Illinois State Fair can qualify for cash dairy production awards, if they have certified production records, says G. W. Harpestad, University of Illinois Extension dairy specialist.

To qualify, cows must have DHIA or DHIR records of at least 450 pounds of butterfat in 305 days or less, corrected to mature equivalent. Two-year-old cows and heifers may be qualified on their dam records.

Harpestad points out that all exhibitors must have their records in good order and be able to identify the records with the cows they are showing. Acceptable records must show the registration number of the cow on the record form. Each exhibitor must bring his records to the fair and have them certified before the cows are shown.

Cash prizes are limited to dairy cattle bred, born, owned, exhibited and maintained within Illinois. Junior exhibitors exhibiting cows in production are encouraged to enter the Milking Derby where more cash prizes are available.

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RC:klf
7/5/68

Announce Top
Illinois DHIA Herds

Cows enrolled in Illinois Dairy Herd Improvement Association (DHIA) outproduced all cows in the state by an average of 2,800 pounds of milk during the year ending April, 1968.

More than 72,000 cows in the 1,250 DHIA herds averaged 12,124 pounds of milk and 464 pounds of butterfat, reports G. W. Harpestad, University of Illinois Extension dairy specialist. By comparison, all cows in Illinois produced an average of 9,320 pounds of milk during the same period.

A Holstein herd owned by Arthur Bruens and Sons, Cissna Park, was the top herd in the state. Their 29-cow herd became the first to record a butterfat average greater than 700 pounds during an official testing year. The herd averaged 707 pounds of butterfat and 18,877 pounds of milk.

Leslie and Gene Bateman, Mansfield, topped the Guernsey breed with 73 cows averaging 11,361 pounds of milk and 615 pounds of butterfat. Piper Brothers, Sumner, led the Jersey breed with 57 cows averaging 10,524 pounds of milk and 537 pounds of fat.

Paul McDonald and Son, Princeton, had the highest producing Ayrshire herd. The 23 cows averaged 13,707 pounds of milk and 523 pounds of butterfat. The top Brown Swiss herd is owned by Eugene Schoepke, Varna. Schoepke's 25 cows averaged 13,707 pounds of milk and 616 pounds of butterfat.

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Harpestad indicates that 386 herds averaged more than 500 pounds of butterfat apiece last year. That was about 31 percent of all the herds enrolled in the DHIA program in the state.

Bruens' herd was the only one topping 700 pounds of butterfat. There were 19 herds that averaged at least 600 pounds of butterfat.

All herds enrolled in DHIA have the milk weighed and tested for butterfat by an impartial supervisor. Records are calculated and analyzed by electronic data processing machines at the University of Illinois.

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GWH:RC:klf
7/5/68

EXCLUSIVE

RELEASES FOR EXTENSION ADVISERS
FROM EXTENSION EDITORS . . . 330 MUMFORD HALL . . . URBANA

Tissue Testing;
When And How

What can you expect from tissue testing? When should you use the tests? How can you test your plants?

University of Illinois Extension agronomist Ted Peck has some of the answers to farmers' questions. But some of the questions are still unanswered because more research is needed.

Peck says that tissue tests are most frequently used when a farmer sees a trouble spot in his fields, or when he's after the "last almighty bushel" and he wants to double-check his fertility program.

You can take tissue tests anytime from now until corn enters the tassel stage. Your first step should be to purchase a test kit.

If you've used a kit in the past and plan to use it again, replace the materials in your old kit or buy a new one. The test materials remain useable for only one season.

The kits test plant sap to determine the amount of plant food in the plant. Usually, nitrogen tests are made on the stalk. Phosphorus and potassium tests are made on leaf tissue.

Peck says the tests indicate the presence or absence of nutritional stress within the plant. They do not indicate how severe the stress is or the cause of the stress.

While the tests are a good tool, they should be only a part of a total diagnostic approach, along with soil testing and perhaps plant analysis.

-more-

Tissue Testing - 2

Tissue testing will be most useful to the farmer who has used it for several years and has gathered experience testing plants growing under differing environmental conditions such as weather and fertilizer programs.

By taking samples during the same stage of plant growth each year and by sampling the same plant parts, farmers can develop a keener sense for interpreting the tests.

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DD:bas
7/11/68

Include Highway Safety
In Vacation Driving Plans

If you're really interested in including highway safety in your vacation driving plans, the time to start is before you leave home, says O. L. Hogsett, Extension safety specialist, University of Illinois.

If you're not used to freeway driving, familiarize yourself with the new driving techniques it has made necessary. Hogsett's suggestions:

--Plan your entire route before you start. Study the maps to decide where you'll turn off or stop. Know and be able to identify the interchange preceding your turn-off point so you have plenty of time to position your car.

--Check your car before you leave home. Faster speeds and fewer service stations can add to the danger and inconvenience of a breakdown in freeway driving.

--If your car is disabled, get it off the traveled lanes, even if you ruin a tire in the process. Buying a new tire is preferable to risking a serious collision. When you're out of the traffic stream, raise the hood and use your handkerchief as a distress signal. At night, display a flashing light--not a steady one.

--Stay awake. Highway hypnosis can creep up on you. Avoid it by frequently changing your driving position, keeping your eyes moving, talking to passengers--and stopping at regular intervals for exercise.

-more-

Include High Safety - 2

--When leaving the freeway, move to the right-hand lane well in advance of the deceleration lane. Signal your turn, but don't reduce speed until you're in the deceleration lane. Once off the freeway, slow down and watch for pedestrians and side-street traffic.

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GEB:bas
7/11/68

EXCLUSIVE
RELEASES FOR EXTENSION ADVISERS
FROM EXTENSION EDITORS . . . 330 MUMFORD HALL . . . URBANA

First Illinois Performance-Tested
Bull Sale Set For December 10

If you will be in the market for a performance-tested bull, or will have such bulls for consignment early in December, mark your calendar for Tuesday, December 10.

That's the date of Illinois' first exclusively performance-tested bull sale, reports Gary E. Ricketts, University of Illinois Extension specialist in charge of the state's Beef Performance Testing Program. The sale will be held at the Illinois State Fairgrounds, in Springfield.

The enormous success of similar sales in Missouri, Virginia and Kentucky has prompted Illinois breeders to inaugurate the idea here.

This is an all-breeds sale. Commercial and purebred cattlemen will have until October 1 to consign their animals to the sale. Bulls born between October 1, 1966 and October 1, 1967--and registered with their national breed associations as well as enrolled in Illinois Beef Performance Testing Program--are eligible.

Breeders not enrolled in Illinois BPT, but who are participating in their breed association's performance testing activities, can consign to the sale as long as bulls meet performance standards set by the sale committee.

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The prospective buyer can get an idea of the quality of bulls being offered by reviewing minimum performance standards for the sale. For example, the 205-day weight, adjusted for age of dam, must be 500 pounds or higher for a bull to be consigned. In addition to the weaning record requirement, all bulls must have a 365-day weight of 900 pounds or more--as calculated in the feedlot phase of the Beef Performance Testing Program.

Breeders may obtain entry forms by writing the sale manager, Tom Reedy, Lovington, Illinois. Chairman of the all-breeds sale committee is Bob McDevitt, New Berlin, Illinois.

A sale catalog, listing the performance record of each consigned bull, will be available about November 1.

RC:klf
7/18/68

New Milking Parlor Ready For
Junior Dairymen At State Fair

Junior dairy exhibitors at the 1968 Illinois State Fair will be using a shiny new milking parlor for the first time. The facilities can accommodate 12 cows at once. Exhibitors may use either their own milking machines or one of the units available at the fair.

G. W. Harpestad, University of Illinois Extension dairy specialist, has announced that the milking parlor will be available to all junior dairy exhibitors between 5:30 and 7:30 morning and evening, beginning Saturday, August 10.

Judges will weigh and sample the milk and put it into a bulk tank. The milk will be purchased by a milk processor and the exhibitor will be paid according to the amount of milk produced and the average butterfat test.

Harpestad notes that the milk will be checked closely for quality and all milk not up to standard will be refused.

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RC:klff
7/18/68

U. Of I. Ag. Economists Offer
Management Decision Assistance

How long you can keep on farming depends on how well you make and carry out decisions which determine whether you make or lose money.

To stay on top of the heap, you'll need to come up with the right answers to such questions as these:

--How big a farm should I operate?

--What enterprises should be included?

--How big should each enterprise be?

--How should capital be acquired?

--Should I hire labor or rely on that supplied by the family?

--What type of machinery or equipment should be used?

--What and how much seed and fertilizer to use?

--What type of rations to feed to livestock?

You can get help with these decisions through budgeting procedures and tools developed by the Department of Agricultural Economics, University of Illinois. You'll find what they are and how to use them in a recently-issued publication called "Mechanics of Farm Budgeting." Ask your county Extension adviser for Circular 985.

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GEB:klf
7/18/68

Evaluate Your Chemical
Weed Control Program

How well did your chemical weed control program work this year? Now's a good time to evaluate so you can make improvements next season, says Ellery Knake, University of Illinois Extension agronomist.

The ideal way to check the effectiveness of any treatment is to leave a small portion of the field untreated, he suggests. Then you can see what weeds you missed and the ones you controlled.

If you haven't left an untreated portion, you'll still be able to check if you can find an area where the sprayer missed a streak. You'll probably find these places near the ends of the field, he adds.

If you decide that your control program has not been effective, get out your herbicide container and read the label. Check to see if you followed the recommendations. A few small mistakes during application may help to explain poor results.

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DD:klf
7/13/68

Spray Fencerow Weeds

Spraying beats cutting fencerow weeds with a scythe on a hot July day. And University of Illinois Extension Agronomist Ellery Knake suggests this spray program:

--Put 50 gallons of water in your spray tank.

--Add 5 pounds of Dowpon just as it comes from the container.

--Add one pound of 2,4-D. That's the same as one quart, if you're using 2,4-D with 4 pounds of active ingredient per gallon.

Knake says the mixture makes enough spray to cover two miles of fencerow 4 feet wide or one trip around 160 acres.

The Dowpon kills grasses and the 2,4-D controls broad-leaved weeds. If you have only a broad-leaved weed problem, use 2,4-D without the Dowpon.

Knake suggests spot-treating Canada thistles that 2,4-D misses with amitrole or amitrole-T.

And he reminds that some plants are susceptible to 2,4-D injury. If you're spraying near susceptible plants, use the amine rather than the ester form of 2,4-D. Apply a fairly coarse spray and spray when there is little or no wind.

Don't let your livestock graze fencerows treated with Dowpon, amitrole or amitrole-T. Although 2,4-D is not highly toxic, it apparently makes some poisonous plants more palatable, so take precautions. Refer to product labels for more specific information on the use of these herbicides.

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DD:klf
7/18/68

Reduce Speed When
SMV Emblem Ahead

Here's a thought for the motorist who's doing 65 when he spots a vehicle 100 yards ahead moving at 5 miles an hour:

You're just 3.4 seconds away from overrunning it unless you react quickly.

The triangular SMV (Slow-Moving Vehicle) emblem is intended for use on vehicles traveling at less than 25 miles an hour. But road speed for most tractors is about 15 miles per hour. And if a tractor is pulling a heavy, cumbersome load, speed may be as low as 5 miles per hour, O. L. Hogsett, Extension safety specialist, University of Illinois, points out.

To live longer--and permit others to do likewise--he suggests these precautions:

--Watch closely for the SMV emblem on the rear of the vehicle ahead.

--When you spot it, reduce speed as quickly as you can safely do so under prevailing traffic conditions. Pump your brakes to warn following traffic that you're slowing down.

--Check oncoming traffic to be sure it's safe to pass--and check traffic behind to make certain someone isn't trying to pass you at the same time. Sound your horn to warn the slow-vehicle operator you're going around, then complete the maneuver.

--If oncoming traffic makes passing hazardous, follow the slow-moving vehicle for the extra moment or two it takes to be sure you can pass safely.

-more-

Above all, don't get upset about the whole thing. Today's farmer often has to move equipment on public roads--from field to field or to and from dealer and service facilities. And no one is more interested than the farmer in getting that equipment into safer territory as soon as possible.

-30-

GEB:klf
7/18/68

Test Soil Before
Planting Alfalfa

Have your soil tested before you make summer alfalfa seedings, advises University of Illinois Extension agronomist Don Graffis.

Your soil fertility level may be the critical factor in determining the success of late-summer alfalfa seedings. If you want a good stand, the soil must be adequately limed, and there must be a high level of available phosphorus and potassium, he says.

Lime should be applied before the field is prepared for seedings and should be well mixed with the soil. While applying lime six months or more before seeding is preferred, good stands can be established when the application is made shortly before planting.

When possible, apply phosphate fertilizer at planting in a band directly below the seed. This allows more effective utilization of the phosphorus by the young alfalfa plant, and lessens competition between the alfalfa seedlings and weeds for the fertilizer.

Nitrogen fertilizer is not needed to obtain a good stand of alfalfa, Graffis notes. In fact, nitrogen may hinder establishment of the alfalfa by encouraging more vigorous weed growth.

Graffis says summer alfalfa seedings have been successful in Illinois. Their big advantage over spring seedings is that they are free of competition from high-yielding small grains.

That's all the more reason to have your soil tested, Graffis points out. -30-

EXCLUSIVE
RELEASES FOR EXTENSION ADVISERS
FROM EXTENSION EDITORS . . . 330 MUMFORD HALL . . . URBANA

Recognize Corn Nutrient Deficiency Symptoms

A trip to each of your cornfields will help you estimate the effectiveness of your soil fertility program.

Here are the symptoms of corn nutrient deficiencies, from Sam Aldrich, University of Illinois Extension agronomist.

When corn needs nitrogen, the lower leaves turn yellow and die. The yellowing starts at the tip of the lower leaves and spreads inward, leaving a V-shaped yellow area.

As the season progresses, the yellowing moves up the plant. Lower leaves gradually wither and die, resulting in "firing."

The symptoms are most obvious during dry seasons.

Like nitrogen, potassium deficiencies show first in the bottom leaves, then move up the plant. But instead of attacking the mid-rib, potassium deficiencies occur along the leaf margins, giving margins a scorched look.

Aldrich says corn will not overcome potassium deficiency, and yields will be cut. When you see the symptoms, it's too late to apply potassium.

Aldrich advises testing the soil and applying the needed potassium next year.

It's too late to notice phosphorus deficiencies now. They show up as reddish or purple coloring in the leaves of plants 6 to 18 inches tall.

-more-

Recognize Corn Nutrient Deficiency Symptoms - 2

Aldrich says phosphorus deficiencies may be caused by an actual lack of phosphorus, or by cultivation, insect damage or other root injury. The damaged roots cannot pick up phosphorus in the soil.

Plants usually outgrow phosphorus deficiency, but yields are often cut. Because corn needs phosphorus early, side-dressing is not practical.

If you noticed phosphorus deficiency symptoms earlier in the season, test the soil and apply phosphorus in your fertilizer next year.

-30-

DD:ph
7/25/68

Junior Milking Derby
During State Fair

Dairy cows exhibited in the Junior Department at the 1968 Illinois State Fair are automatically eligible to compete in the Milking Derby, too, announces University of Illinois Extension dairy specialist G.W. Harpestad.

He explains the Milking Derby is a special class in which cows are ranked according to amount of butterfat they produce during a five-day period.

The judge will weigh and sample the milk and compute its butterfat content. All production will be adjusted to cow maturity. Harpestad believes the Milking Derby will help emphasize the importance of efficient production and the advantages of record keeping.

The derby starts with a dry milking on Saturday, August 10, at 5:30 p.m. in the milking parlor of the Junior Livestock Building. Milkings will continue every morning and every evening at 5:30 through August 15.

-30-

RC:ph
7/25/68

Note to Advisers: For use by advisers in the Hartsburg area

Dillon Reports On
Hartsburg Field Conditions

Moisture has been adequate all during the cropping season at the University of Illinois agronomy experimental field at Hartsburg. And the July 23 shower kept things that way. All crops look good.

Most corn has tasseled except for the late-planted fields. Most hybrids are about a week ahead of last year.

Soybeans planted before the early part of May look especially good. Soybeans planted after that time are shorter and have not quite filled in the rows.

"Because moisture has been adequate all during the season, we're pretty well assured of 50-bushel yields from the early-planted beans," says John Dillon, U. of I. associate agronomist. "Rainfall during August will determine the yield of the later plantings."

Wheat combining is completed and most of the oats in the area are out. The hard wheat variety trials at the field produced these yields: Triumph, 51 bushels per acre; Guide, 51; Ottawa, 57; Scout, 61; and Gage, 63 bushels per acre.

Following wheat combining, Dillon planted plots of 75-day corn and 85-day sorghum in wheat stubble. Both crops were planted on July 5. On July 23 the corn was about a foot tall.

-more-

Dillon anticipates that moisture will be critical in determining yields on these midsummer-seeded crops. If moisture is inadequate, he plans to split the trial plots and irrigate one-half to determine the results when moisture is held at adequate levels.

To determine the effect of date of planting on yields, Dillon planted a 135-day corn on March 26, April 11, May 18 and June 3. And Dillon says the March 26 planting looks best. The corn started tasseling during the last week of June.

"The corn looks like it should yield at least 200 bushels per acre," he says.

The May 18 and June 3 plantings still haven't started to tassel, but according to Dillon, they still look good.

The Hartsburg experiment tour will be held at the field on August 27.

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DD:sm
7/25/68

NOTE: Copy for Adviser Column or Radio Program

New Grain Center
Plans Available

Farmers who want to expand their on-the-farm grain drying and feed handling facilities in preparation for the 1968 corn harvest will be interested in looking at a couple of new plans I've just received from the Midwest Plan Service.

Each plan consists of 14 sheets of explicit details, along with alternative layout arrangements. They were developed by agricultural engineers at Purdue University.

For those just getting into on-the-farm grain drying, the layouts start with one bin dryer plus the elevator. Expansion plans include arrangements for high-speed batch-in-bin, continuous flow or batch dryers with facilities for 30,000 bushels or more of storage. The plans also include bin layouts for dryeration for hot grain and aeration of stored dry grain.

Plan No. 73292 is especially adapted to wagon unloading with equal sheds and center work tower across the drive for feed processing.

Plan No. 73293 is designed for outside truck unloading and scale installation under the roof.

Both plans feature a vertical bucket elevator and work tower with hoppered overhead bins for grain handling and feed processing.

Plans can be seen in the Extension adviser's office. Available for sale at $2 per copy.

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RC:ph
7/25/68

EXCLUSIVE

RELEASES FOR EXTENSION ADVISERS
FROM EXTENSION EDITORS . . . 330 MUMFORD HALL . . . URBANA

What Causes Barren Stalks?

Barren stalks don't put corn in the crib or bin. Instead, they cut yields and profits.

Barren stalks are usually caused by one or more of these factors:

--Inadequate fertility or an imbalance.

--Stress conditions such as drought, flooding or hailing. Heat and drought during pollination are the most frequent causes.

--Insect and disease attack. For example, smut occasionally causes barrenness when it occurs on the upper leaves, ear shoot or tassel. Aphids and corn borers may cause barrenness, as can heavy populations of rootworm beetles that feed on the silks and larvae that feed on the roots.

--Too high or too low plant populations. Thin stands often produce earless barren "suckers." Suckers should not be confused with barren stalks. They are often as tall or taller than the mother plant, and they're usually smaller in diameter.

Thick stands have to compete for nutrients and water. The losers sometimes just don't develop ears.

-30-

SPECIALIST: Don W. Graffis, agronomist.

DD:ff
8/8/68

"Read" Your Corn Crop

The corn ear has a language all its own that can help you check crop management skills and soil fertility programs.

For example, big bulky ears hanging on the barn wall may impress your neighbors. But those ears are really telling you your plant population was too low for the most profitable yields.

Poorly filled, twisted and stubby ears are signs of lacking fertility. Or they may indicate your population is too high.

A nitrogen deficiency often results in short ears with unfilled tips. Potassium deficiencies produce similar ears with loose, chaffy kernels.

A phosphorus shortage interferes with pollination and kernel fill. Affected ears are usually short, twisted and poorly filled on one side. Keep in mind, however, that when dry weather occurs during the silking process, the silks aren't pollinated and the resulting ears will also be poorly filled.

If you find green silks on mature ears, you can "read" them as a sign of imbalance in your fertility program. Usually, it's a case of too much nitrogen in relation to other elements.

-30-

SPECIALIST: Fred Welch, agronomist.

DD:ff
8/8/68

Farm Management Tour
Slated For August 27

(Note to advisers: Beckett serves as Secretary-Treasurer of the Illinois Pork Producers' Association and is well-known throughout Illinois.)

John Beckett of Gillespie will host a farm management tour on his 400-acre Macoupin County hog farm Tuesday, Aug. 27.

Besides an intensive cropping system, farm visitors will see a 300-litter hog system featuring a confined open-front finishing building with slotted floors and an on-farm feed processing center.

"Beckett's large volume hog enterprise is operated at top efficiency," R. P. Kesler, University of Illinois Extension agricultural economist, says. "For every dollar of cost above the average for similar-sized farms, Beckett increases his output by $2."

The farm tour starts at 1 p.m. To reach the Beckett farm, go 2.7 miles north of Gillespie (to the second crossroad) on Route 4. Then go west one-half mile, north one-half mile and then 1.7 miles west on the winding road.

Beckett sells hogs on a grade and yield marketing program which returns $2.11 per cwt. above the average selling price. Pork is produced for $1.40 per cwt. below the state average feed cost.

"The selling price and feed cost advantages plus the adoption of latest hog production technology has produced management returns four times those of similar Illinois farms," Kesler points out.

-more-

G. R. Carlisle, U. of I. Extension swine specialist, will discuss breeding programs at one of the tour stops, and Melvin Fink, U. of I. area Extension livestock adviser, will comment on quality pork production.

The afternoon tour is co-sponsored by the Macoupin County Extension Council and the Lincoln Farm Bureau Farm Management Association.

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JTS:klf
8/8/68

EXCLUSIVE

RELEASES FOR EXTENSION ADVISERS
FROM EXTENSION EDITORS . . . 330 MUMFORD HALL . . . URBANA

NOTE TO ADVISERS: Select the variety section that fits your area and ignore the other section on varieties. The following sections apply to both the hard and soft wheat areas of the state. You can use the entire story or pull out any section for radio or column material.
SPECIALIST: DON W. GRAFFIS

Agronomists List Wheat Seeding Suggestions

How much wheat you'll harvest next summer depends on how wisely you make management decisions before and during wheat planting.

Here's the current thinking of University of Illinois agronomists to help boost your wheat yields in 1969.

The soft wheats outyield the hard wheats in the southern half of Illinois. Hard wheats do best in the northern half of the state.

Soft Wheat Varieties

The 1967-1968 variety trials at Urbana show these soft wheat varieties to be highest yielding: Benhur averaged 64.8 bushels per acre; Stadler, 56.5; Monon, 55.7; Knox 62, 54.7; and Vermillion, 53.7 bushels per acre. Riley 67 looks good, but has only been in test one year.

Most of the soft wheat varieties mature early and within three or four days of each other. They are generally classified "short" with the exception of Knox 62, Stadler and Vermillion, classified "moderately tall."

All soft wheat varieties have good straw strength, especially Benhur and Riley.

-more-

EXCLUSIVE

And all varieties have some resistance to the Hessian fly. Benhur and Knox 62 are more resistant than Monon and Riley 67.

Leaf rust, stem rust, smut, mosaics, septoria and mildew are the most common wheat diseases. And most of the suggested soft wheat varieties have some resistance to the diseases. They may, however, be susceptible to a specific disease.

In general, Benhur has the best over-all resistance to the normal wheat diseases. And the resistance in the variety may explain why Benhur has been high-yielding in Illinois tests.

Hard Wheat Varieties

The 1967-1968 variety trials at Urbana show these hard wheat varieties to be highest yielding: Gage averaged 54.7 bushels per acre; Scout, 53.2; Ottawa, 44.8; and Pawnee, 43.6 bushels per acre.

The hard wheats are classified "medium" in maturity, being later than the older variety Triumph. They're also rated "medium" in plant height, being taller than Triumph.

On the basis of straw strength, Pawnee, Gage and Scout rate "fair." Guide rates "good" and Ottawa rates "excellent."

All hard wheat varieties have "moderate" resistance to the Hessian fly except Pawnee which has only "low" resistance.

Leaf rust, stem rust, smut, mosaics, septoria and mildew are the most common wheat diseases. Gage has the highest across-the-board level of disease resistance, but the variety is susceptible to septoria and mildew--as are the other varieties.

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Seed Treatment Stops Bunt

Bunt--sometimes called covered smut or stinking smut--took a healthy cut out of some farmers' wheat checks in 1967 and again in 1968.

There are two ways to control bunt: Either buy treated seed or treat the seed yourself.

If you want to buy treated seed, you'll probably have to tell your seed dealer in advance. While a few companies will offer treated seed this fall, most firms refuse to sell it.

Here's why: In the past, some farmers have put left-over treated seed with market grain. The entire lot of grain is contaminated by the seed wheat and is condemned by the Food and Drug Administration.

The carload lots of such wheat are then destroyed and the cost is passed to elevator operators who bought the wheat from the producer.

If you decide to treat your own seed, use one of the mercury seed treatment fungicides. The mercury treatment controls bunt and other seedling diseases caused by seed- and soil-borne fungi. They do not control loose smut.

These fungicides should be used 5 days to 3 months before planting, as the label directs.

Some mercury formulations can be used as a drill box treatment. With such a treatment, only seed being used is treated.

Treated seed not used for planting should be destroyed--not marketed or fed to livestock.

-more-

Planting Date

There's a right time and two wrong times to plant wheat in the fall. With resistant varieties, the "right" time is the week before and the three weeks after the Hessian fly-free date, which is _____ (date) in _____ (county) County.

After _____ (date), Hessian fly egg laying stops and soil conditions are usually best for planting.

If you plant too early--a "wrong" time--the wheat is susceptible to Hessian fly infestation. And the wheat may head in the fall and be subject to winter kill.

If you plant too late--another "wrong" time--the seedling wheat may not have time to get well established and it may winter kill. To get top yields, wheat must be planted early enough in the fall for it to stool.

So, aim for _____ (date) and try to finish wheat planting within three weeks of that time.

Seedbed Preparation

During the fall of 1967, many farmers rushed to get wheat seeded after soybeans. Because of the wet fall, many seedbeds were poorly prepared and resulting stands were also poor.

What makes a good seedbed? A well-prepared seedbed should be worked so the soil particles are moderately fine--but not powdery. The seedbed should be firm and smooth enough to allow a uniform seeding depth.

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Working the ground when it's too wet results in a rough, cloddy seedbed. Some seed stays on the soil surface while other seed gets "burried" under clods.

Wheat should be seeded one-half to one inch deep. If you're planting late, aim for the one-half-inch depth. If your soil is dry, place the seed deeper to reach soil moisture.

Fertilizing Wheat

The best fertility program for wheat has to be based on soil tests. And in general, wheat rates next to corn in response to fertilizer.

Phosphorus: Wheat requires a large amount of readily available phosphorus in the fall to stimulate early growth, encourage winter survival and produce high yields next summer.

If you have a P_1 test, apply the recommended rate. If you do not have a P_1 test, apply 30 to 60 pounds of available P_2O_5 through the drill, or broadcast 60 to 120 pounds.

Fields that have received recent phosphorus applications will get by with the lesser amounts.

Nitrogen: Dark-colored soils do not need nitrogen at planting time. But on light-colored soils low in organic matter, 15 to 20 pounds of nitrogen applied as a mixed fertilizer through the drill will produce a good response.

Remember that wheat responds to extra nitrogen up to the point when lodging begins. And if you're seeding alfalfa or red clover, the nitrogen you add affects the profit of your forage as well as your wheat crop.

-more-

Potassium: Unless your soil test is less than 100, wheat will not respond well to potassium. So, apply potassium only to meet needs of legumes seeded in the wheat or to contribute to your general soil buildup or maintenance program.

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8/15/68

UI Alfalfa Yields
1.5 Tons In 70 Days

What can spring-seeded alfalfa contribute to your forage program?

At the University of Illinois, Extension agronomist Don Graffis' spring-seeded plots produced 1 1/2 tons of hay per acre just 70 days after they were seeded. And Graffis expects to harvest at least 4 tons from each acre during the rest of the year.

Graffis seeded the plots on April 9 and harvested the first cutting on June 20.

He says it's easy to establish alfalfa, clovers and grasses in the spring without a companion crop, if you use the herbicide 4,2-4DB to control broad-leaved weeds.

Herbicides should be applied when the weeds are one to two inches high. Preemergence Eptam can be used to establish legumes when grasses aren't present.

When Eptam is incorporated into the seedbed, it will control broad-leaved weeds and grasses.

Spring seedings without companion crops should be seeded as early as a good seedbed can be prepared, Graffis says. If you seed in April or early May, the legumes will have time to become well established and will produce two or three cuttings before mid-September.

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DD:klf
8/15/68

EXCLUSIVE
RELEASES FOR EXTENSION ADVISERS
FROM EXTENSION EDITORS . . . 330 MUMFORD HALL . . . URBANA

Wheat In Cattle Rations

Farmers may want to consider feeding wheat to cattle this year, suggests Burt Weichenthal, University of Illinois Extension beef specialist. Wheat has as much energy as corn--and more protein.

Unlike swine, cattle can utilize wheat's extra protein effectively. Weichenthal says that since wheat has more protein, cattle need less protein supplement when fed wheat. And, since farmers save on supplement, they can afford to pay a little more for wheat as feed for cattle than they can for corn.

If you intend to feed wheat to cattle, remember that wheat, by itself, is not a very palatable feed. Weichenthal suggests it be mixed half-and-half with corn. If silage is being fed, wheat can make up a little more than half of the ration.

He also gives these recommendations to make wheat palatable when fed to cattle:

--Wheat should always be coarsely ground or rolled so that it will be digested. Unless the hard shell is cracked, the wheat will pass through undigested.

--When you mix corn and wheat half-and-half, be sure to readjust for the wheat's extra protein. This will mean cutting back on the amount of protein supplement you feed, since beef rations only need an 11 percent protein level and wheat is 11 percent protein to begin with.

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No change will have to be made for energy values. Wheat and corn have nearly equal amounts of energy.

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RC:klf
8/22/68

Supplement Late-Summer Pastures

Watch pastures closely this time of year. You may be out of feed before you know it. The quality of the pasture forage may not be as good as it looks, either, reminds Leo Fryman, University of Illinois Extension dairy specialist.

As pasture plants mature, the protein levels fall far below where they were earlier in the season. Likewise, forage digestibility isn't what it used to be. Producing dairy cows are apt to require supplemental feed under these conditions.

Fryman says high-quality silage, hay or grain are all good feeds to supplement late-summer and early-fall pastures. If grain is used as the major supplemental feed, use a mixture which contains an adequate amount of crude protein. He offers these suggestions:

--Grass pastures with little or no legumes in the mixture will require a supplemental grain mixture containing 16 to 17 percent protein.

--With good legume and grass mixtures for pasture, a grain mixture with about 13 percent protein should be adequate. This same type of mixture will be satisfactory if liberal amounts of good quality legume hay are fed to supplement the pasture.

--If your daily ration includes 30 to 40 pounds of corn silage, and if no hay is fed with fall pastures, a grain mixture containing the higher level of protein will be required.

-more-

The amount of hay or silage to feed depends on the amount of pasture forage available. In general, you can feed all of the hay and silage the cows will eat. Of course, Fryman adds, the amount of grain to feed to each cow depends on the amount of milk she is capable of producing.

Be sure to take care of each cow's mineral appetite, too. This can be done easily by giving her free access to trace mineralized salt and to a high-phosphorous mineral mixture such as dicalcium phosphate or steamed bonemeal.

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RC:klf
8/22/68

EDITOR'S NOTE: Attached is a list of the Junior exhibitors entered in the Milking Derby, along with their final standings. We'd suggest you add a paragraph about participants from your county.

McLean County Holstein
Wins Junior Milking Derby

The same cow that won the Junior Milking Derby at the Illinois State Fair as a three-year-old in 1965 returned to the winner's circle again this year! The Holstein, Molly Freed Sally, is owned by McLean County 4-H'er Glenn Gillis, of Danvers.

Winning this year's Junior Milking Derby title the cow produced about 15 quarts of milk each of 10 milkings during the contest, with a remarkable 5.1 butterfat test.

Another McLean County Holstein, owned by Steve Schwoerer, placed second. A Guernsey owned by Lee Maule, Stark County, turned in the third best over-all performance.

University of Illinois dairy specialist Gary Harpestad, who judged the Derby, says 88 cows owned by 71 different Junior exhibitors competed in this year's contest.

Winners were determined by the amount of butterfat produced during the contest. Production of the young cows was adjusted to maturity and cows fresh over 40 days were given additional credit.

A total of 98 cows, owned by 78 Junior exhibitors, were milked in the Junior milking facilities this year, Harpestad reports. The exhibitors were paid more than $800 for the 21,000 pounds of milk produced while at the fair.

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RC:GWH:klf
8/22/68

FINAL PLACINGS 1968 JUNIOR MILKING DERBY

Rank	Name	Address	Breed
1	Glenn Gillis	Danvers	H
2	Steve Schwoerer	Bloomington	H
3	Lee Maule	Princeville	G
4	Lois Smith	Oswego	H
5	Diane Bressner	Fairbury	H
6	Kevin Harms	Fairbury	H
7	Linda Stoll	Chestnut	MSH
8	Linda Camp	Collison	H
9	David Stoll	Chestnut	MSH
10	Lois Ackerman	Chenoa	BS
11	Louis Stumpe	Dow	H
12	Greg Luster	Blandinsville	MSH
13	Scott Bunyard	Greenville	H
14	Lonnee Grove	Carlock	G
15	Martin Voorhees	Washington	H
16	James Meyer	Peotone	H
17	Brad Cribbet	Bethany	MSH
18	Marilyn Stoll	Chestnut	BS
19	William Ellingson	Poplar Grove	H
20	Karen Muehling	Cissna Park	G
21	John Goodwin	Wilmington	BS
22	Camella Sibley	Chadwick	BS
23	Gregg Muehling	Cissna Park	G
24	Melvin Meyer	Peotone	BS
25	Warren Schleich	Fairview	H
26	Brad Heinzman	Carlyle	H
27	Mike Laesch	Bloomington	G
28	Ann Erdman	Chenoa	G
29	Margaret Weas	Griggsville	J
30	Steven Foster	Melvin	J
31	Gary Patterson	Sullivan	J
32	John Marcoot	Greenville	J
33	Paul Wehrly	Kane	H
34	Lynn Zehr	Pontiac	H
35	Neil Doty	St. Charles	G
36	Cynthia Tracy	Jerseyville	H
37	Barb Heitzler	Prophetstown	G
38	Cindy Timm	Chebanse	J
39	Larry Berger	Naperville	J
40	Jerry Luster	Blandinsville	MSH

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FINAL PLACINGS 1968 JUNIOR MILKING DERBY (Cont'd.)

Rank	Name	Address	Breed
41	Debbie Tucker	Brighton	MSH
42	Cathy Weas	Griggsville	A
43	George Smith	Rochester	G
44	Peggy Chace	St. Anne	G
45	Paul Ummel	Saybrook	H
46	Patricia Kopman	Gifford	BS
47	Russell Johnson	Chenoa	H
48	Debbie Elsas	Lincoln	H
49	Bonnie Reynolds	Witt	G
50	John Mackinson	Pontiac	A
51	Phyllis Chase	St. Anne	G
52	Jim Smith	Rochester	G
53	John Thomas	Havana	G
54	Mary Thomas	Havana	G
55	Richard Fox	La Fayette	J
56	Bill Nolan	Pontiac	BS
57	J. C. Barnard	Canton	A
58	William Fox	La Fayette	J
59	Mike Camp	Collison	BS
60	Leonard Barnard	Canton	A
61	Chris Kelm	Mt. Carroll	BS
62	Karen Walker	Charleston	G
63	Leonard Alwardt	Altamont	MSH
64	Mike Terstriep	Quincy	G
65	Kathy Loos	Payson	J
66	Kevin Mackinson	Pontiac	A
67	Mike Nolan	Pontiac	BS
68	Connie Call	Low Point	J
69	Jerry Beck	Rochester	G
70	Dana Stewart	Princeville	G
71	Kenneth Holze	Hampshire	A

EXCLUSIVE
RELEASES FOR EXTENSION ADVISERS
FROM EXTENSION EDITORS . . . 330 MUMFORD HALL . . . URBANA

UI Beef Cattle Day
September 27

Illinois cattle producers will head for the University of Illinois campus on Friday, September 27, to attend the 1968 Beef Cattle Day. This annual event reviews the latest U. of I. beef feeding research and gives cattlemen a firsthand look at the University's beef research facilities.

Program chairman B. A. Weichenthal, U. of I. Extension livestock specialist, announces that cattlemen arriving at the beef center that morning will see yearlings being fed various levels of fiber in their high-grain ration. Crop conditions permitting, visitors can watch as urea and minerals are added to high-moisture corn and corn silage as it is ensiled.

They'll see the new slotted floor facilities for cattle research. Equipment used for harvesting stalklage will be displayed. And, a freeze branding demonstration is planned.

In the afternoon, livestock researchers will review the past year's beef cattle research on:

--Urea-mineral fortification and level of grain.

--Methods of administering vitamin A in the ration.

--Considerations for drylotting cows.

--Use of urea compared with soybean meal and DES implants.

R. H. White, director of cattle procurement for Armour & Company, is guest speaker for Beef Cattle Day. He knows what packers are looking for in desirable beef carcasses. His challenge is for cattlemen to produce them.

Those attending the event can park at the southeast corner of the Assembly Hall lot and use free bus service to get from the Beef Cattle Research Center to the Stock Pavilion for lunch. The afternoon program is scheduled for 1 p.m. in the University Auditorium.

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8/29/68

UI Beef Cattle Day
To Highlight Research

Cattle producers attending the 1968 Illinois Beef Cattle Day at the University of Illinois, Urbana, on Friday, September 27, will hear a review of the past year's beef cattle research activities and will have a chance to tour the research facilities.

B. A. Weichenthal, U. of I. Extension livestock specialist and program chairman, sends us a rundown of the research being covered during the program:

--Does fortifying corn silage and high-moisture corn with urea and minerals at harvesttime work? E. E. Hatfield has tried this for three years and finds it gives him a stored feed complete in protein, calcium, phosphorous and salt for growing and finishing cattle.

He's tried various ration combinations with the level of grain at one or two percent of bodyweight. In some instances, mineral was omitted from some of the silage but added later at feeding time.

--What's the best way to get vitamin A to beef cattle? Frank Hinds has been studying methods of administering vitamin A in cases where rations of urea-fortified corn silage and high-moisture corn have created a problem of not providing adequate levels of vitamin A in the ration.

Hinds' report will include comparisons on feedlot performance and levels of liver vitamin A storage when the vitamin was administered in the feed, in the minerals, in the water or by injection.

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--What difference does it make whether you have beef cows in drylot all year or pasture them during the summer and drylot them in the winter? That's what W. W. Albert has been studying for several years. His latest report will include comparisons on the number of services required per conception, weaning weights and creep-feed consumption of calves, daily rations for drylot cows, relative carrying capacity of forage for drylot versus pasture, summer weight changes by the cows, and comparative observations on cow health with each system.

--How does urea compare with the combination of soybean meal and DES implants in terms of producing gains on yearling steers? G. F. Cmarik reports on experiments conducted at the Dixon Springs Agricultural Center. He put 220 head of cattle on feed for 120 days last winter to make the weight gain comparison.

In addition to being briefed on last year's beef cattle research, Cattle Day visitors will also have an opportunity to see research now in progress at the U. of I. research facilities. Their tour will include a chance to see urea and minerals being added to silage at the time of silo filling. A freeze branding demonstration is also planned.

Guests are welcome at the barns any time after 9 a.m. Afternoon sessions are scheduled to begin at 1 p.m. with adjournment at three o'clock.

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8/29/68

Control Wind Erosion

Consider these cultural practices to help reduce wind erosion next spring, suggests University of Illinois Extension agronomist Bill Oschwald:

--Delay plowing sandy soils, such as Dickinson sandy loam, until spring. Such soils are subject to wind erosion. They dry and warm rapidly in the spring, so they benefit little from fall plowing.

--Delay plowing soybean stubble until spring. Fall-plowed soybean stubble is especially subject to wind erosion. Soybeans leave the soil in a loose condition that is easily moved by the wind. If you must fall plow, make a light seeding of spring oats as early in the fall as possible.

--Use a chisel plow. The plow leaves part of the crop residue on the surface. The rough surface catches small soil particles picked up by the wind.

--Leave a rough surface on fall-plowed cornfields to reduce soil movement. Spring oats seedings will also help if they are made early in the fall. Unplowed strips--not disked or shredded--will also provide a barrier to stop soil being moved by the wind.

The strips should be 15 feet wide and should be spaced every 100 to 120 feet. Plan the strips to lay nearly perpendicular to the prevailing wind. Strip seedings of oats, or a mulch such as manure or straw, can replace the unplowed strips.

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8/29/68

Editor's Note: This release has been personalized specifically for use in your local newspaper column or radio time. It relates to the new Agricultural Engineers Digest 6-page sheet which you received earlier this week.

Press Corncribs Back Into Service

Predictions on the Illinois corn crop keep creeping higher as we get close to harvesttime. There's good reason to believe that bins, either on the farm or at local elevators, will be overflowing. This has prompted farmers to give serious thought to storing the excess.

Corncribs that have been standing empty since the shift to corn combining and grain drying facilities may be pressed back into service this year.

Cribs that are sturdily built and still in good condition can be converted with just a few alterations to accommodate shelled corn. Remodeling involves three things:

--Strengthen the structure with wales, rods, cables or banding.

--Make the walls grain tight, and weather tight if long storage periods are anticipated.

--Provide for moving shelled corn into and out of storage.

Just last week, I received new information and recommendations for converting corncribs. If you are interested in getting more details, just call or visit my office and ask about "Remodeling Corncribs for Saml1 Grain Storage."

Converting cribs is just one of several ways to handle this year's crop. Be sure to compare the costs of remodeling the cribs with the possibility of erecting additional steel bin storage to take care of the bigger crops for years to come.

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8/29/68

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Editor's Note: This release has been personalized specifically for use in your local newspaper column or radio time.

Revised Swine Housing Handbook

If you are thinking about revitalizing your swine production business with some newer facilities, stop in and ask to see a copy of the newly revised copy of "Swine Housing and Equipment Handbook" that we now have available.

The book is based on information from successful pork producers and agricultural engineers in the north-central states, and published by the Midwest Plan Service.

A. J. Muehling, University of Illinois Extension agricultural engineer, had a hand in writing the book and he notes that important revisions have been made in the areas of gestation sow housing, slotted floor recommendations and manure handling ideas. These revisions update a similar book published in 1964.

The emphasis is on "planning" as well as presenting a variety of plans for gestating, farrowing, growing and finishing facilities. This includes management procedures, ventilation requirements, manure disposal considerations and space recommendations.

Swine producers who have an earlier version of this book will find it well worth the $1 the revised book costs if they are remodeling or updating their current facilities.

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8/29/68

EXCLUSIVE
RELEASES FOR EXTENSION ADVISERS
FROM EXTENSION EDITORS . . . 330 MUMFORD HALL . . . URBANA

SPECIALIST: Ellery Knake

Atrazine Controls Quackgrass

Fall atrazine applications give good control of quackgrass both in research trials and in farmers' fields.

Apply four pounds of actual atrazine--or five pounds of 80-percent wettable-powder--early enough to allow at least three weeks of active plant growth before the ground freezes.

You can treat corn and soybean stubble or any other harvested cropland where corn will be planted next spring. But, do not apply atrazine on fields that won't be in corn next year. If you do, atrazine carry-over may damage the crop you plant next year.

If your fields have patches of quackgrass rather than a uniform stand, spray only the patches.

Dalapon can also control quackgrass. And there's little danger that dalapon will carry over in the soil when applied in the fall.

Follow these precautions to avoid problems with atrazine residue:

--Don't apply more than the recommended rates.

--Don't overdose by lapping or covering part of the field more than once.

--Don't use the above rates of atrazine on cropland that will be in small grains, soybeans or vegetable crops next year.

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--And don't use atrazine on lawns.

Atrazine controls quackgrass and does it well. But you have to be careful to avoid carry-over problems.

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9/5/68

SPECIALIST: Ellery Knake

Dessicants Not Cleared
For Soybean Use

None of the dessicants for drying weeds in soybeans have federal clearance for use on soybeans being raised for food or feed.

And U. of I. agronomists don't recommend using any of the chemicals presently on the market.

Here's why:

--If you apply the chemicals before the beans mature, premature leaf loss reduces the yield.

--If you postpone the application, you'll still have to contend with the tough stems of foxtail, pigweed, velvet leaf and cocklebur.

--If you spray the beans, the equipment may cause some shattering as it goes through the field.

Preemergence herbicides, the rotary hoe and the cultivator are still the best ways to control weeds in soybeans. Start planning now to do a better job of eliminating weeds next spring.

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9/5/68

Consider Adding Urea
To Dairy Silage Rations

For dairymen wondering about the economics of adding urea to their corn silage this fall, Leo Fryman, University of Illinois Extension dairy specialist, has some suggestions.

Calculate the cost of one pound of urea and add the value of six pounds of shelled corn. Similarly, establish a value for seven pounds of 44-percent soybean meal. Compare the two answers. If the urea-corn mixture is cheaper, you can probably trim your protein bills by adding urea to corn silage this fall.

Fryman cautions dairymen against adding too much urea to their silage. He says 10 pounds per ton is about right. If you use more, cows may not eat the silage as well. By all means, get the urea mixed well in the silage as it is blown into the silo.

Adding 10 pounds of urea per ton of silage increases the protein equivalent content 40 to 50 percent. This means a lower protein grain mix can be used. However, Fryman adds, some additional protein supplement will be needed in the grain mixture fed to high-producing cows.

The daily urea intake from all sources should not exceed one-half pound of urea per cow per day. Cows consuming large quantities of urea-treated silage will obtain almost that much just from the silage. To guard against higher consumption when urea-treated silage is fed, protein in the grain mixture should be provided by plant protein.

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A 14- to 15-percent crude-protein mixture is adequate to supplement urea silage fed alone or used in combination with medium-quality legume roughages.

Pay close attention to the stage of maturity of corn to be used for silage if you plan to add urea to it. Do not add urea to mature corn silage harvested late in the fall or winter. Dairy cows may not eat much of it if you do.

The best stage for chopping is when kernels are well-dented and the lower leaves are brown.

It's easier to blend urea into silage at ensiling time than it is to mix it in the grain ration later. And, it doesn't affect the palatability of the feed.

Fryman adds one other consideration. Experiments have shown that feeding urea-treated feeds several times a day results in better animal use and performance. With the mechanical equipment available for feeding silage frequently, it is easier to dispense urea throughout the day by having it blended into corn silage.

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9/5/68

NOTE TO ADVISERS: You can localize this story by adding sign-up procedures and transportation arrangements. Such planning is excellent PR for Extension. It ties your office to the U. of I. and helps reach some young people outside of 4-H Club work.

UI Student Guest Day
Set For September 28

_____ County high school students interested in careers in agriculture and home economics should plan to attend the University of Illinois Ag. and Home Ec. Student Guest Day, September 28.

The day's program offers a chance to see a Fighting Illini football game and includes career interest sessions and a panel of students discussing University life.

Registration for Guest Day starts at 8:15 a.m. in the University Auditorium. At that time, students can purchase football tickets and box lunch tickets for $1 each.

The agricultural sessions will include: crops and soils; horticulture and floriculture; animal and dairy science; agricultural economics; agricultural education and Extension; forest production and wood technology; agricultural communications; food science and dairy technology; agricultural engineering; preveterinary and veterinary medicine; agricultural industries; plant pathology; general agriculture; and agricultural law.

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UI Student Guest Day - 2

The home economics sessions in Bevier Hall will include: retailing, clothing and textiles; design, apparel and interior design; foods and nutrition; foods and business; dietetics and institution food service; child development; Extension and education; and research and graduate study.

Contact your county Extension adviser for additional information and to see a copy of the program.

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9/12/68

EXCLUSIVE
RELEASES FOR EXTENSION ADVISERS
FROM EXTENSION EDITORS . . . 330 MUMFORD HALL . . . URBANA

Silo Gas Fatal:
Exercise Care

Entering a partly filled or filled upright silo without taking safety precautions may be fatal, reports O. L. Hogsett, University of Illinois Extension safety specialist.

Two lethal gases--carbon dioxide and nitrogen dioxide--are present in upright silos.

Carbon dioxide is a colorless, odorless, heavier-than-air gas normally emitted during the silage fermentation process. Nitrogen dioxide is a deep brown, poisonous gas which is also heavier than air. As nitrogen dioxide gas cools, it turns yellow, indicating the presence of nitrogen tetroxide.

Hogsett says carbon dioxide gas causes suffocation by stopping the oxygen supply in humans. Nitrogen dioxide causes coughing, choking and a feeling of extreme weakness.

When filling your upright silo this fall, observe these safety precautions, Hogsett suggests:

--Leave the distributor pipe in the silo near the silage level to draw off gas.

--Run the blower for 15 to 20 minutes before entering a partly filled silo. Keep it running as long as anyone is inside the silo.

--Stay out of the silo for 10 to 14 days after filling it.

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--See a doctor immediately if you feel the slightest throat irritation or start coughing while in the silo or when you leave. Delay could result in illness or death.

--Keep children, pets and livestock away from the silo during and after filling.

--Ventilate the silo room for at least two weeks after filling by keeping outside doors and windows open. Use a fan, if necessary, to insure ventilation.

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JTS:klg
9/18/68

EXCLUSIVE
RELEASES FOR EXTENSION ADVISERS
FROM EXTENSION EDITORS . . . 330 MUMFORD HALL . . . URBANA

Precautions For
Holding Wet Corn

If it's necessary for you to hold undried shelled corn in the course of this fall's harvest, Gene Shove, University of Illinois agricultural engineer, has these suggestions.

In the first place, prevent as much mechanical damage from harvesting and handling as possible by careful machine adjustment. It is not uncommon to find 30 percent of the field-shelled corn mechanically damaged on most farms. That corn will spoil three or four times faster than undamaged corn, Shove emphasizes.

To safely store undried corn, delay harvesting until night temperatures approach 40 degrees, and the corn field-dries to 22 percent moisture or less.

In addition, you will need a cooling system that supplies one-half cubic foot of air per minute (cfm) per bushel. Run the cooling system any time the outside temperature is lower than the grain temperature.

For a rough check of grain temperature, measure the temperature of the cooling system's exhaust air. The exhaust temperature is usually about three degrees warmer than the grain temperature.

You can detect mold growth by smelling the exhaust air.

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To properly aerate corn, one must understand the relationship of corn moisture, temperature and allowable storage time. For example, 22 percent moisture shelled corn--cooled to and maintained at a temperature of 40 degrees--has an allowable storage time of almost 60 days.

About November 1, in central Illinois, 22 percent moisture shelled corn can be stored in aerated bins. By this date, the average daily temperature approaches 40 degrees.

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RC:klg
9/26/68

Thinking About Plastic
Corn Storage?

What do you need to know before storing part of this year's corn crop between plastic sheets? Agricultural engineers at the University of Illinois give these suggestions:

--Use six- or eight-mil clear polyethylene sheets.

--You can temporarily store 1,500 to 2,000 bushels of corn between two 20- by 75-foot plastic sheets. Place one sheet on well-drained ground--repeat, well-drained ground--free of sharp sticks and stones.

--Unload the corn onto the plastic. Then place the second sheet over the corn, tucking the edges under the bottom sheet.

--Connect an exhaust fan to an airtight duct that extends into an air collection box in the center of the pile.

--In a pile of 2,000 bushels of corn, you'll need a three-fourths horsepower fan to move 1,000 cubic feet of air per minute (cfm) at about 2 1/2-inches of static pressure. Run the fan continuously.

--When weather permits natural cooling, open the corners of the plastic sheets. When air temperature is higher than corn temperature, close the corners to stop the airflow.

If you need more than 2,000 bushels of storage, go to a larger sheet of plastic. A 40- by 100-foot sheet stores about 10,000 bushels. To aerate this much corn, a two or three horsepower fan is required to move 5,000 cfm of air at 2 1/2-inches of static pressure.

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When airflow is not needed, a smaller one-fourth or one-half horsepower fan will hold the plastic in place.

Any time you are not using the fan, close the opening to stop an air transfer. Since the top sheet could blow away during a power failure, it is a good idea to weight the top down with rubber tires or ropes with weights attached to both ends.

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9/26/68

Lease Place To Store
Overflow Corn Crop

If it looks as though your corn cribs or bins will "runneth over" this fall, consider renting someone else's storage facilities. Or, if you have facilities standing idle, consider renting them to someone else.

There is every reason to believe that storage facilities will be tight. Wheat and soybeans are competing with corn for storage space, reports F. J. Reiss, University of Illinois farm management specialist.

He says price should be the first consideration if you plan to rent cribs or bins. Because there is no set price for on-farm corn storage, Reiss suggests you think in terms of a price range.

The upper limit of a range, generally decided by farmers needing storage facilities, will depend on cost for your neighbor's bins or commercial storage, cost of putting up temporary storage, cost of installing permanent storage and cost of leaving corn in the field.

Check with local elevators to find the commercial price for storing corn, Reiss suggests. Also, visit with neighbors to see if they have space available and what price they are charging.

In setting the lower price limits, Reiss cautions farmers with storage facilities to be aware of out-of-pocket costs of maintaining the building, nuisance value and returns from alternative uses.

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Out-of-pocket costs include taxes, maintenance and insurance for the portion of the year used.

To determine nuisance value, consider what you'll need to compensate for the bother, trespass and inconvenience from renters using buildings and access driveways.

Alternative uses of otherwise unused ear corn cribs are likely to be zero, Reiss says.

Price guidelines vary. Many farmers charge one cent per bushel per month for storage. But, this price does not recognize seasonal demands, so the same rate is charged for November as for April.

Other farmers charge a straight five cents for six months' use.

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9/26/68

Overheating Grain
Damages Internal Structure

Stress cracks in corn--the result of drying high moisture corn rapidly at high temperatures--cause concern among grain millers and exporters.

John T. Scott, University of Illinois agricultural economist, explains that exported corn is handled several more times than domestically used corn, leading to kernel deterioration and mold problems. Kernel breakage and stress cracks increase with each handling.

Corn, dried too fast at high temperatures, tend to "puff" and damage the internal starch structure. If the grain temperature--not drying temperature--exceeds 140 degrees, the starch and protein in the corn kernel become impossible to separate. This condition greatly reduces the value of the corn to the processor.

Scott reminds farmers that this is a result of "overheating," not to be confused with "overdrying." Overheating is more apt to be a problem in bin layer drying, unless a stirring device is used.

Research conducted at Purdue University shows that when corn is dried eight percentage points per hour, 40 percent of the kernels develop multiple stress cracks. At a two percent per hour drying rate, less than 10 percent of the kernels develop cracks.

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Breakage increases rapidly when corn is dried below 16 percent and handled at low temperatures. A tempering period and slow cooling after drying help prevent stress cracks.

Those interested in checking the grain temperature as it is being dried should take a sample nearest the entering hot air of the dryer. Place the sample in a wide-mouthed thermos bottle immediately. Insert a thermometer into the grain. It will read slightly lower than the actual corn temperature in the dryer.

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9/25/68

Mechanical Damage
Cuts Corn Profits

Mechanical damage to corn kernels opens the seed coat to infection by mold spores and bacteria. A split kernel--one with starch exposed--spoils about four times as fast as an undamaged kernel.

Frank W. Andrew, University of Illinois Extension agricultural engineer, says you can hold mechanical damage to a minimum by keeping harvest machinery properly adjusted.

Corn is considered mature at 30 percent moisture. Most combines do a good job of removing all kernels from cobs when the grain moisture level is 5 to 8 points below maturity. It's not practical to harvest at higher moisture levels because too many kernels will be damaged, Andrew points out. To maintain the quality demanded by the grain trade, producers should begin harvesting when corn reaches 25 to 26 percent moisture.

Each time grain is handled, some mechanical damage occurs, and damage opens the way for spoilage. Improper equipment adjustment or equipment operated at too fast a speed often causes kernel damage.

Farmers can reduce kernel damage by following the equipment manufacturer's instructions and recommendations. Pay special attention to the concave spacing and cylinder speed of your combine.

In some cases, it may be more profitable to leave a few kernels on the cob rather than damage too many kernels because the concave setting or cylinder speed is set too high, Andrew suggests.

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Screening and fanning the fine particles at each point where grain is discharged or picked up are other ways to keep corn quality high and extend the time you can safely store corn.

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RC:klg
9/26/68

Lifting Improperly
Causes Strain, Pain

URBANA--Each fall, thousands of homeowners take enforced vacations because of sprains, strains, hernias and other injuries caused by lifting heavy objects improperly.

Most of the injuries could have been avoided with a little care and foresight, says O. L. Hogsett, University of Illinois Extension safety specialist.

The most common results from lifting with back muscles are strain and pain. Don't bend at the waist when you're picking up a heavy object. For your muscle's sake, bend your knees and keep your back straight when lifting, advises Hogsett.

Examine all moving jobs with a labor-saving, critical eye. Often you can rearrange your work to cut down the amount of lifting. Look for chances to use simple and safe mechanical aids such as rope hoists, wooden skids, hand trucks or inexpensive conveyors, the safety specialist recommends.

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JTS:klg
9/26/68

Use Machine Guards;
Cut Farm Accidents

After you lose an arm or a leg to a farm machine, it's too late to be sorry, warns O. L. Hogsett, University of Illinois Extension safety specialist.

The stakes--part of the body or a life--are too high to gamble against having an accident.

Hogsett advises farmers to see their implement dealer before the harvesting season begins to get safety shields and guards installed on harvesting equipment. The best safety equipment made gives no protection if it is not used properly, he says.

Some farm machinery manufacturers are placing non-removable power take-off shields on equipment to help protect operators against their own negligence. Many shields are being built with a loop around the pipe connection between the universal joints or are otherwise permanently attached so that they cannot be taken off completely.

Check shields on fans, gears and shafts, Hogsett advises. Be sure all shields are in place before taking the harvestor to the field or using it around the farmstead.

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JTS:klg
9/26/68

EXCLUSIVE

RELEASES FOR EXTENSION ADVISERS

FROM EXTENSION EDITORS . . . 330 MUMFORD HALL . . . URBANA

NOT FOR PUBLICATION

October is Co-op Month across the nation. Theme for the observance is: "Cooperatives--Community Builders." In this week's packet, we are enclosing several co-op stories. To more fully publicize this event, you'll want to localize the enclosed information and use names. You might also consider doing part or all of the following:

1. Trace the flow of co-op dollars in your community or county by showing how members, employees and businesses benefit.

2. Do in-depth interview with long-time or young member on what co-ops mean to him as well as to his community.

3. Write a statistical report on the number of co-ops in community or county, volume of business, nature and variety of business, number of people affected, how co-ops tax dollars have affected the community.

4. Use a concrete example to show value of co-op to consumer and general public--better quality food such as many farmer cooperatives can point to.

5. Show that co-ops make contributions as a vital rural industry by providing jobs, greater opportunities and added income to area.

6. Comment on how co-op action betters the community. Report on co-op leaders taking part in community or county drives, scholarships and other programs for rural youth. Many co-ops buy 4-H calves at fair auctions.

As always, we suggest you retype the enclosed information before sending it to radio and television broadcast personnel and to newspaper editors. Suggest to radio and television broadcasters that they air interviews with local co-op leaders--about one a day or three a week during October. Suggest to local co-ops that they all band together and buy enough advertising to support a special supplement in the local newspaper. Make good use of high-quality, black and white photographs.

And don't forget to send us a copy of the results. We'd like to know how you and the county co-op leaders and managers handled the co-op observance during October.

For additional information, contact Joseph Sample, Agricultural Economics Editor, 330 Mumford Hall, University of Illinois, Urbana 61801, or call him at (217) 333-1130.

The Editors

Waukegan Cooperative
Initiates Co-op Month

A Waukegan cooperative, Cooperative Trading, Inc., initiated Co-op month in March, 1929.

Jack Liukku, the co-op's manager, got the idea late in 1928 after reading in a British cooperative publication about the annual membership drives undertaken by Great Britain cooperatives in February.

The cooperative's educational committee designated the month of March as the time for expanding cooperative activities in Waukegan. A program included speeches, demonstrations, advertising and other activities. The committee's aim was to succeed from a cooperative educational standpoint as well as from the economic expansion standpoint.

During the 'first' month celebration, Eskel Ronn, manager of a Minnesota cooperative, advocated the designation of a National Cooperative Month when 'propaganda and educational activities in all societies should take place simultaneously, so that the cumulative effect of such propaganda might be realized.' The board of directors of the Cooperative League of the USA were instructed to designate October as Cooperative Month.

The first statewide Cooperative Month was held in Minnesota in 1948. In 1968, many states will hold special observances of Cooperative Month with the same educational goal as Waukegan's cooperative 39 years ago.

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JTS:sm
10/3/68

Illinois To Celebrate
Co-op Month In October

Each October is designated as Co-op Month in most of the country.

A chance to explain the special contributions cooperatives make as a part of the American business system, Co-op Month is also a time to remind members--now numbering about a third of the families in this country--of the special values of user-owned businesses.

The theme for 1968 is: Cooperatives--Community Builders.

During October, cooperatives are holding special events for members and the public. Taking part in this observance are farmer cooperatives, housing and health associations, rural electric and telephone cooperatives, fishery and forestry groups, farm credit associations and credit unions, grocery and other consumer buying co-ops and others.

Illinois Governor Samuel Shapiro, as well as local officials, have issued proclamations declaring October as Co-op Month.

Gov. Shapiro pointed out in his proclamation that cooperative business enterprises have contributed substantially to agricultural progress and general ceconomic development in Illinois.

Cooperatives strengthen our democratic system and provide opportunities for people to help themselves by joining together in business for mutual benefit, he said. The success of cooperatives depends upon active membership participation and better understanding of this way of doing business by the general public.

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Co-op Month has been traced to a local cooperative in Waukegan that is credited with holding the first such observance in 1929. Nationally, the observance was started in 1964, when the U.S. Department of Agriculture held its first Co-op Month.

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10/3/68

US Co-op Know-How
Moves Overseas

Farmer cooperatives with over $1 billion in assets and $15.6 billion in annual business are in partnership with the U. S. Government to help boost farm production and farm income in overseas countries.

They're taking know-how and manpower to the grassroots. They're showing people in a score of developing countries how to set up and run their own businesses.

Many other types of cooperatives as well as farmer organizations have had a unique partnership with the Agency for International Development (AID) for seven years. Together with AID, they have worked in 53 countries to help build and strengthen cooperative institutions.

Their activities have ranged from rural training centers and credit unions, handicraft and cottage industries, to the multi-million dollar agricultural credit and marketing programs. Now a group is working with a $120-million fertilizer cooperative to be owned by farmers in India.

These cooperative business ventures open new horizons and new challenges for U. S. cooperatives.

Exclusive of the technical assistance and manpower contributions of U. S. cooperatives, the U. S. Government invested $8.5 million last year in cooperative development overseas. Measured by results, however, it reveals the low cost and efficiency of cooperative programs. Over 400 technicians were on the job.

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In India, U. S. cooperative assistance has set up pilot oilseed crushing cooperatives, with more under construction. When some firms declined to sell the new "miracle" seeds, U. S. cooperative technicians helped Indian farmers set up their own distribution system. This expanded both production and distribution of "miracle" seeds. Results were so successful that many firms other than cooperatives are now selling seed.

In the meantime, a group of regional U. S. cooperatives have pledged $1 million and their know-how, and organized Cooperative Fertilizers International to help the Indian cooperatives build a $119 million nitrogen fertilizer plant. The project, which involves AID, the Indian Government, a privately financed loan of over $50 million, and the Indian cooperatives, now awaits the go-ahead of the Indian Government.

It is the largest international business transaction that cooperatives have yet undertaken. It could be a pace-setter for other ventures. Present plans call for building the cooperative at the port city of Kandla, in the Gulf of Kutch in northwest India. Construction is expected to begin in 1969, with completion targeted for 1971.

The need for cooperatives overseas is greater now than ever before. The new demand for people's enterprises rests in part on the demand of farmers. A breakthrough in the revolution in world agriculture finally seems to have taken place. Record crops are being produced in a growing number of developing countries.

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To maintain the "Green Revolution," the world's farmers must have more than just words of encouragement to sustain high production.

There must be heavy inputs of fertilizers--which can be produced and distributed cooperatively. There must be storage and marketing facilities to assure reasonable and stable prices--which can be done effectively through co-ops. There must be improved farm supplies and machinery, and insecticides and chemicals to protect crops and harvests from insects and rodents.

Over and above this, there must be sustained technical help to train local farm experts and extension workers to reproduce or develop new strains of "miracle" seeds.

And farmers need help, not only to cope with the problems that accompany necessary new techniques, but with the economics of marketing. Here again, the simplest and most direct approach is through cooperatives that involve the whole community.

By the measure of what is needed, the actual achievements are admittedly small, but they point the way. A quarter of a century has made a tremendous difference in the size, importance and net worth of U. S. cooperatives, but the developing countries cannot wait that long.

These are some of the reasons why AID is taking a second look at the potential resources of U. S. cooperatives to involve people in useful enterprises and open up the private sector to new development.

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JTS:sm
10/3/68

Co-op Facts And Fillers

The 8,300 farmer-owned marketing and purchasing co-ops do nearly $21 billion worth of business annually.

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Over 900 electric cooperatives bring service through about six million meters to an estimated 24 million rural people.

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The 231 rural telephone cooperatives have about 650,000 subscribers, and have brought initial or improved service to 2.5 million people.

****

The 1,100 credit cooperatives in the Farm Credit system loaned over $9 billion last year to farmers and their cooperatives.

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The 23,185 credit unions had 19.4 million members, savings on hand of $11.5 billion and loans outstanding of $10 billion in April, 1968.

****

Over 2,175 cooperative housing projects valued at $1.7 billion house some 135,000 families.

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The 180 group health plans have 4.8 million people enrolled.

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Mutual insurance companies provide more than half the fire insurance carried on farm property in 1,400 areas.

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Over 300 agricultural bargaining cooperatives serving 200,000 producer-members bargain for better prices of farm products valued at more than $2 billion.

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Credit unions are financial cooperatives. They are owned and controlled by their members exclusively.

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EXCLUSIVE
RELEASES FOR EXTENSION ADVISERS
FROM EXTENSION EDITORS . . . 330 MUMFORD HALL . . . URBANA

NOTE TO ADVISERS: This information has been written in sections so you can use it as short items for your column or for your radio show. Or you can combine sections appropriate for your county and use it as a news release. Don't miss the chance to localize the material by using it to develop a farmer success story.

SPECIALIST: Sam Aldrich, agronomist.

Fall Nitrogen Applications

Fall nitrogen applications have been 75 to 100 percent as effective as sidedressed applications in University of Illinois tests throughout the northern two-thirds of the state during the past four years.

Ammonium-nitrate, the fertilizer used in most of the tests, contains one-half of the nitrogen in the nitrate form. Fertilizers that contain only nitrogen in the ammonium form--or those such as NH_3 and urea that convert to the ammonium form--should be even more efficient than ammonium-nitrate when applied in the fall.

Fall Application Advantages

These are the advantages of applying nitrogen in the fall:

--Fall applications permit early planting in wet springs on all soils--even clay soils during most years. However, sidedressing the nitrogen also permits uninterrupted seedbed preparation and planting. And early planting usually favors high yields.

--Fall applications result in less soil compaction and fewer ruts, compared to early spring applications.

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--Fall applications combined with plowing save one trip through the field.

--Fall applications can be timed so the soil is at the ideal moisture level and NH_3 can be applied with little or no loss. In the spring, soil may not be dry enough by corn planting time to assure a perfect seal of the applicator slit.

--Fall applications of NH_3 eliminate the risk of stand damage that infrequently occurs when ammonia is applied shortly before planting.

--Fall applications eliminate the problems that occur when you sidedress 30-inch rows--especially on contoured fields.

Fall Application Disadvantages

These are the disadvantages of fall nitrogen applications: Fall-applied nitrogen will likely be 10 to 20 percent less efficient on medium- and fine-textured soils in central and northern Illinois.

The efficiency will be even lower on claypan soils in south-central Illinois. Claypan soils are often quite wet for long periods in the spring, resulting in denitrification losses.

South of route 15, from Mt. Carmel through Mt. Vernon to East St. Louis, fall nitrogen applications are of questionable value. In that area of the state, the soils cool later in the fall and warm earlier in the spring. Often, the soils are frozen for only a short time.

Another disadvantage of fall applications is that nitrogen cannot be recovered if the field is flooded or is not planted for some other reason.

If you change your mind and decide to plant soybeans or oats, you'll get much less efficient use of the nitrogen. And if low spots drown out or have ponded water in May and June, the nitrogen will not be used by the crop.

Keep in mind that these disadvantages may also apply to early spring applications.

Fall Applications: What Kind And When?

Fertilizers that do not contain any nitrogen in the nitrate form work better than dry ammonium-nitrate or solutions that contain nitrate. Anhydrous ammonia is slightly preferred to urea and fertilizers that contain ammonium because the high concentration of NH_3 in the NH_3 band delays the conversion to the nitrate form.

U. of I. agronomists suggest applying nitrogen in the fall after the soil temperature drops to 50° F. at the four- to six-inch level. Nitrification occurs until soil temperature reaches 32° F. But in most years, when the temperature reaches 50° F. it continues to fall rapidly and soil organism activity soon stops for the fall.

Fall Application Rates

To offset the slightly lower efficiency of fall-applied nitrogen, you should apply an extra 15 to 20 percent. For example, if you need to apply 150 pounds in the spring, increase the fall application rate to 175 or 180 pounds.

If you're planning to apply 200 pounds or more, consider split applications. Apply about two-thirds of the amount in the fall or early spring and sidedress the remainder.

You can apply the sidedressing after your crop is knee high. By then you know the planting date, plant population, extent of weed control and available soil moisture.

You will also be able to tell how well your fall application survived the winter and spring. If prospects for a record crop look good, sidedress liberally. If they don't, skip the sidedressing.

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SPECIALIST: Don Graffis

The Growing Season And Corn Maturity

The 1968 corn crop is maturing about 10 days earlier than the 1967 crop. Here's why:

Compared to 1967, the 1968 growing season has produced 10 to 15 percent more heat units at most Illinois locations where readings are taken. Based on data collected through July 31, 1968, the accumulated heat units at those locations about equal the units accumulated during the same period in 1966.

Farmers finished planting corn 10 to 13 days earlier this year than they did in 1967. And, cornfields reached the tassel stage five to six days earlier than last year's crop.

Agronomists are able to predict when corn varieties will reach various stages of development by keeping track of accumulated "heat units." Corn grows as long as the temperature stays above 50° F. "Heat units" express the number of degree days above 50° F. For example, a day that averages 60° F. produces 10 heat units. If the temperature for a day averages 50° F. or less, no heat units are produced.

Each variety requires a different number of heat units to reach maturity. A cool growing season tends to prolong maturity because heat units don't add up as fast.

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A good case in point is what would have happened to a 130-day variety planted in 1965 and 1967. Assume that 130-day variety requires an average of 2,800 heat units to mature at Urbana. If the variety had been planted on May 7, 1965, it would have reached maturity--30 percent moisture--on September 19. There would have been almost four weeks of good drying weather left in which the moisture would continue to drop.

But, that same variety planted the same day in 1967 would not have accumulated enough heat units to reach maturity until October 4. Because of the cooler summer, corn that took 130 days to mature in 1965 took 147 days to mature in 1967.

How Corn Matures

The depositing of starch, oil and proteins begins following pollination. Dry matter buildup in the kernel is complete by the time the moisture content of the kernel reaches 30 percent.

Usually 55 to 60 days are required after pollination for kernel moisture to hit the 30-percent mark. And this period is not influenced as much by weather as is the period from planting to pollination.

Long periods of cloudy weather can slow the photosynthesis rate. And cool temperatures can slow the conversion of sugars to starch, oil and protein.

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Iowa data show an average of nine days are required for corn to field-dry from 30 percent to 25 percent, or about a 0.5 percent moisture drop per day, assuming the corn reaches physiological maturity before a killing frost. It takes an average of 16 additional days to field-dry from 25 percent to 20 percent, or about a 0.3 percent moisture drop per day. Field drying below 20 percent is practically nil.

But in 1967, several Illinois agricultural Extension advisers gathered corn samples in the field during the harvest season. The samples suggested that moisture content in corn only declined about 0.15 percent per day.

Following Corn Maturity

Corn is "academically" mature when the grain moisture level measures 30 percent. But, hopefully, some field drying will occur after corn matures. The amount hinges heavily on these weather factors: air movement, temperature and relative humidity.

After maturity, kernel moisture losses occur in much the same way as water evaporates from a pond or a pail. When air movement is rapid, temperatures are high and the relative humidity is low, the moisture content of the kernel drops as fast as possible.

But if the air stills, the temperature drops or the relative humidity goes up, the drying process slows.

Unfortunately, because of the low air temperatures in Illinois after mid-October, corn drying proceeds slowly--if at all. Cool air has a lower moisture-carrying capacity than warm air.

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In Urbana, the average mean temperatures for September, October and November are 67°, 55° and 41° F., respectively, The average maximum temperatures for the same months are 78°, 66° and 50° F.

Which Will Be First--Maturity Or Frost?

When corn matures late or when fall comes early, there is always a chance of frost hitting before the corn matures.

Corn that has not reached the 30 percent moisture level by the first killing frost is called "soft corn." The term "wet corn" refers to corn that has not reached 20 percent moisture by harvest--the level usually considered safe for ear corn storage.

Here's the rule of thumb for Illinois' conditions:

--Corn that pollinates in mid-July usually reaches maturity by mid-September. This corn normally dries to 20 percent, the safe ear corn storage level, by mid-October.

--Corn that doesn't pollinate until August still requires 55 to 60 days to reach maturity. This corn is likely to be wet at harvest, and may be caught by an early frost.

Can You Stand The Field Losses?

If you can't get your corn out of the field, or if you have no way to condition or store the corn once it's harvested, you may have to suffer field losses, regardless of how severe they are.

It's hard to determine your potential field losses. The losses depend on wind velocity, rainfall and the stalk rot incidence of each field.

If weather conditions are optimal for minimizing field losses, you can expect harvest losses to compare to the percent of stalks showing signs of rot. For example, if 15 percent of the stalks show signs of rot, you'll suffer a 15 percent yield loss from stalk rot.

If you have heavy rains or high winds, you can expect even greater field losses.

Here's how you can check stalk rot incidence in your fields:

--When the corn matures, cut into a few stalks near the base of the plant. Discolored stalks and stalks with pith that is almost nonexistent or obviously damaged by disease have been attacked by stalk rot.

--Feed the outside of the stalk. Stalks that feel soft and are dead-appearing are probably affected.

--Be certain to check each field. Varieties differ in their ability to resist stalk rot and stand well. The better you know your variety and its standability record, the better you can decide whether to take your losses in the field or at the elevator.

Weigh and balance anticipated field losses, lower moisture discount of delayed harvesting and a possible price increase against the high moisture discounts and lower field losses you'll get if you field shell.

Agricultural engineers say field losses are usually lowest when corn is combined at about 26 percent moisture. At lower levels, field losses and kernel damage are greater.

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10/3/68

4-H Teen Caravan
Provides Action

Teenagers 17 to 20 years old, who want to have fun while being where the action is, should join the 4-H Teen Caravan.

The 1969 Caravan provides for eight weeks of living in either Europe or South America with host families, reports H. J. Wetzel, University of Illinois Extension 4-H specialist.

Countries included in the five-year-old program are Ireland, the Netherlands, Italy, Austria, Denmark, Spain and Peru.

Leaving June 23, 1969, Caravaners will live with a host family for six weeks and then go on a 10-day tour of neighboring countries before returning to the United States on August 26, Wetzel says.

Application blanks for the educational program, sponsored by the National 4-H Foundation, are available from the ___(county name)___ County Extension adviser, _(your name, address, town, zip)_. Interested youth should submit the blank no later than Nov. 1, 1968.

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10/3/68

Should You
Grind Hog Rations?

About half of the swine growers in Illinois still feed unground corn and supplement to their pigs. We continue to get questions from producers, though, asking whether they should grind.

University of Illinois animal scientists have conducted 26 different research comparisons in recent years to help answer the question. Referring to the research, G. R. Carlisle, U. of I. Extension swine specialist, cites four reasons for grinding:

--Pigs tend to gain faster on complete ground rations. The gain differences show up more on pasture than when animals are in drylot.

--Pigs gain more uniformly--with fewer-tail enders--when fed ground rations.

--By feeding ground, complete rations you have some control over supplement consumption. If shelled corn that is dry and hard is fed, pigs may eat too much supplement. Or, they may eat too little if palatable high moisture corn is fed.

--With ground feed, pneumatic conveying equipment can be used to distribute feed to a number of locations with ease. You cannot move shelled corn this way with the equipment available today.

Carlisle notes that feed efficiency remains about the same, whether the ration is ground or unground. The gain in efficiency pays the cost of grinding.

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Grinding does not lower feed costs unless a cheaper, less complex grinding supplement is used, he adds. On the other hand, in light of the other advantages for grinding, you end up getting more for your feed dollar.

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10/3/68

Dairymen Should Inventory
Roughage Needs Soon

With the last cutting of hay baled and corn silage cutting completed, dairymen should take inventory of their winter roughage supply and anticipate shortages that could occur before spring.

Leo Fryman, University of Illinois Extension dairy specialist, offers these tips for estimating the amount of roughage the herd will need this winter.

First, figure the total hay equivalents your herd will require. Use these figures: Each milking cow needs 2 1/2 to 3 tons of dry hay between now and the spring grazing season.

Each bred heifer will eat 1 1/2 to 2 tons of hay. And each heifer under one year of age will need three-fourths of a ton of hay.

If you're substituting silage for hay, remember that it takes three pounds of 70-percent moisture silage to equal the amount of dry matter in a pound of hay.

Fryman notes that two pounds of haylage provide the same amount of dry matter as a pound of hay.

If, after taking inventory, it looks as though you might run short, consider buying additional hay or increasing the rate of grain feeding. How do you decide which to do? Fryman uses this guide:

Two pounds of good quality legume-grass hay equal one pound of good quality grain ration containing about 75 percent total digestible nutrients. If your grain mixture costs about $2.50 per hundred pounds, you can afford to pay at least $25 for a ton of good quality hay.

Fryman cautions dairymen that there is a limitation to the amount of roughage that can be replaced with grain. Each cow should get at least 12 to 15 pounds of dry hay, or an equivalent amount of dry matter from silage, per day.

When the amount of roughage drops below this level, milk fat tests may be extremely low and digestive disturbances are apt to flare up.

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10/3/68

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SPECIALIST: Bill Oschwald, agronomist

Wind Erosion Wrap-Up

Loose, bare soil and dry, windy weather result in soil blowing or wind erosion. And the problem causes troubles for many people.

The farmer feels the impact of wind erosion through the loss of top soil, crop damage from blowing soil and the deposit of soil contaminated with weed seeds or chemical residues in fields that are clean and residue free.

Causes Of Wind Erosion

Crop production trends have been one cause of increased wind erosion in recent years. In 1967, Illinois farmers grew corn on one-third more acres than they did in 1961.

And soybean acreage in 1967 was about seven percent higher than it was in 1961.

In addition to larger acreages of corn and soybeans, many Illinois farmers planted earlier in the spring--a practice that usually results in higher yields.

The rush to early planting caused many farmers to switch to fall plowing. And as a result, many fields were bare and vegetation-free during the winter and early spring. Such fields offer little resistance to soil blowing.

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When fields are bare and the soil is loose and dry, wind erosion may occur whenever the winds reach a rate of 13 mph or more.

Wind Erosion Controls

Sandy Soils. In Illinois, the most severe wind erosion occurs on the isolated areas of sandy soils. And in such areas, solid-seeded small grains provide the most complete wind and water erosion control.

Small grain seedings should be made as early as possible. Late seedings may not have adequate soil moisture to become established.

If you're seeding oats, sow one bushel per acre and cover the seed using a spike-tooth harrow. If you're planning to use a preplant grass-control herbicide, or if you need early spring grazing, you can seed rye.

In either case, small grain seedings should be made no later than October 15 in the northern one-third of the state. In the remaining two-thirds, seedings should be made by October 25.

Soybean Stubble. The greatest total amount of wind erosion occurs where soybeans have been grown. The first step toward reducing erosion in such areas is to use a straw spreader on the combine to get an even distribution of the crop residue.

Where rows are 30 inches wide or less, the residues provide fairly good erosion control.

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You can further reduce erosion in the spring by eliminating plowing. Disking, chisel plowing, using a field cultivator in the spring or practicing zero tillage are all practices that leave some crop residues on the soil surface and reduce erosion. But consider how you'll place phosphorus and potassium fertilizers if such a seedbed preparation method is used.

If you must plow or disk soybean stubble this fall, then you should plan to seed oats or rye in the fall as suggested for sandy soils.

Corn Stubble. Some wind erosion occurs each year on corn ground, especially when stalks are fall plowed. If you fall plow, leave the surface rough with residues showing.

"Clean plowing" is rapidly becoming the mark of an uninformed farmer rather than of a good farmer.

Nearly any minimum-tillage system offers effective wind erosion control. Control is obtained in part because the land is not fall-plowed, and in part because residues remain on the soil surface after planting is completed.

Where land must be fall-plowed, strip plowing can help control erosion. Unplowed strips should be at least 15 feet wide and no more than 100 to 120 feet apart.

The strips work best when laid nearly perpendicular to the direction of the prevailing winds. But in Illinois, wind direction changes when spring comes.

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During the winter, the winds come mainly from the northwest. But in the spring, especially during March and April, strong winds come from both the southwest and the northwest.

If you're leaving unplowed strips, you'll have to rely on your own knowledge of prevailing winds on your farm.

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Hog Expansion Hinges On
How You Are Already Doing

With the hog:corn ratio about 20:1 now, hog expansion looks mighty tempting. G. R. Carlisle, University of Illinois Extension swine specialist, admits this is enough to make a hog man's heart beat faster, but adds some words of caution.

"The long-range consideration to keep in mind when thinking about expansion is whether you can make money when hog prices adjust back to $14 or $15 if overexpansion occurs," reminds Carlisle. He suggests basing your decision on these five factors:

--Past performance as a pork producer. How many pigs per litter have you saved? How much pork are you producing with each $100 spent on feed? How is your profit per litter situation? Remember, expansion is not the way to brighten a dim profit picture. Profit is more a reflection of performance than numbers.

--Labor availability. Will expansion mean more work for you, or will it help you utilize some excess labor? Will you be paid well for the added labor requirement?

--Investment in additional facilities. Can you expand without having to alter present farrowing, growing or finishing facilities? If it means adding more buildings, are you ready?

--Age. Are you young and ambitious or are you approaching an age when you wish to slow down a little? Expansion calls for more skillful management. Are you up to it?

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--Anticipated changes. Any expansion at this time should fit into your long-term master plan for growth. Don't decide to expand just because of the current hog:corn ratios.

How do you stack up as a hog man now? R. P. Kesler, U. of I. Extension farm management specialist, cites the performance of Illinois hog producers enrolled in the Farm Business Farm Management (FBFM) record association as a guide by which you can measure your own results.

Of the 744 farmers reporting FBFM hog enterprise information last year, 71 have been tabbed "high-return" farmers. Another 156 have been designated "low-return" farmers. Here's what their records show:

The high-return group of farms had returns per $100 feed fed that ranged from $180 to $199. Returns for the low-return group ranged from $120 to $139. Differences in feed conversion and feed costs per 100 pounds of gain accounted for the $60 spread between the return groups.

Kesler notes that high-return farmers show a knack for producing more pork with less feed. In 1967, they produced 100 pounds of pork with 95 pounds less farm grains and 21 pounds less commercial feeds than low-return farmers. On a per-farm basis, feed savings averaged 2,305 bushels of corn and 14.2 tons of protein--more than $4,300 chopped from the feed bill.

The records also show that the high-return farmers weaned 0.7 more pigs per litter; had 0.6 percent lower death loss; and received 62 cents more per 100 pounds for pork than did low-return farmers.

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Estimating nonfeed costs at $5 per 100 pounds produced, the high-return farmer sold his hogs at $4.28 more per hundred pounds than his total cost. The average producer received $2.17 more per hundred pounds than his total cost.

Assuming the low-return group would have had the same nonfeed cost, they would have received just 28 cents more than their total cost per 100 pounds produced.

The enterprise records indicate that feed makes up 70 percent of the total cost of producing hogs. To pay for all labor and capital costs, records show farmers should be realizing at least $76 above feed cost per litter.

All hog farmers on the FBFM program last year averaged $107 returns above feed cost per litter, with the high-return men averaging $152.

Farmers who have the skill and capital required to effectively manage a hog enterprise may find this is a good time to expand.

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10/10/68

Harvest Time Brings
Chance Of Accidents

Farm people suffer more accidents during the harvest season than during any other time of the year.

One way to combat the high accident rate, suggests O. L. Hogsett, University of Illinois Extension safety specialist, is to put all machinery into top operating condition before harvest begins.

But even then, the battle is only half won. Field safety accounts for the other half. During the harvest rush when chances for accidents mount rapidly, follow these safety rules, Hogsett suggests.

1. Be alert. Never take a chance. Many hands, arms, legs and lives are lost to chance.

2. Keep all shields and safety guards in place.

3. Stop all motion and moving parts before unclogging, greasing or adjusting harvesting tools.

4. Wear tight-fitting clothing when operating harvesting machines.

5. Operate tractors and self-propelled machines at safe speeds whether in the field or on the highway.

6. Display Slow Moving Vehicle emblems and red flags prominently for highway travel.

7. Keep children away from harvesting equipment.

8. Obey traffic rules and signs. Use headlights and taillights at night.

9. Stop all equipment before dismounting.

10. Harvest during daylight hours only.

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EXCLUSIVE

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Better Timing Improves
Dairy Cow Conception

Failure to get dairy cows bred on time costs days and dollars later in the year.

J. R. Lodge, University of Illinois dairy scientist, says dairymen should try to have at least 90 percent of their cows settled with no more than two services.

If your herd's percentage of conception with two services is low, take a hard look at your herd management. Complete herd health and breeding records will pay off.

Lodge doesn't recommend rebreeding cows until 60 days after they calve. The cow's reproductive tract normally requires two months to prepare for another calving.

Lodge has these suggestions for improving your herd's conception rate:

--The best time to breed cows is just before ovulation. Unlike other species of farm animals, cows ovulate 10 to 12 hours after the end of standing heat or estrus.

--Usually, the heat period lasts about 18 hours for cows and 15 hours for heifers. But some cows have short heat periods--maybe just three hours. Other cows may be in heat as long as 30 hours! And the interval between heat periods--usually 21 days--also varies.

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Because the timing of heat periods and ovulation varies, it pays to know each cow individually. Keep track of past breeding performance and try to determine when the chance for conception is best.

Experiments show that cows bred from six hours before to six hours after the end of standing heat have the highest conception rate.

Cows first observed in heat in the morning should be bred that afternoon or evening. Those observed in heat in the afternoon or evening should be bred the following morning.

The lifespan of the egg and sperm is short in the cow's reproductive tract. If breeding occurs too much before ovulation, the sperm may not be viable for conception. Similarly, delayed breeding runs the risk that the egg will not be viable. Here is where better timing can improve the rate of conception.

This calls for keeping a closer watch on your herd. Studies show that conception rates improve when cows are checked three times daily instead of once a day.

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10/17/68

Guidelines Reviewed For
Farmer-Hunter Relations

Hunting on another man's land remains a privilege granted by the landowner, reminds O. L. Hogsett, University of Illinois Extension safety specialist.

When hunters abuse that privilege, landowners usually post "No Hunting" signs.

Hogsett suggests hunters follow these rules to improve relations between themselves and landowners.

1. Never hunt on a farm without permission. Ask the farmer first--he expects and has a right to grant or refuse hunting privileges on his land.

2. Securing proper introduction to a farmer will help get permission to hunt. Farmers like to know who is on their land.

3. Keep guns and dogs in the car until after hunting permission is granted. As a common courtesy, do not approach the house with gun in hand.

4. Don't impose on a landowner by hunting with a large party. An "army" of hunters and dogs will be resented. Three or four to a party is sufficient.

5. Locate farm boundaries before starting to hunt. This will prevent trespassing problems.

6. Note location of livestock and crops such as soybeans, alfalfa, clover and corn. Farmers do not appreciate hunters and dogs trampling through these fields or near areas where livestock are pastured.

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7. Keep dogs under control at all times. Don't allow them to chase livestock.

8. Always close gates. No farmer likes to round up his cattle on a neighbor's farm.

9. Don't break down fences. Go under them, or climb over at fence posts. If necessary, lift dogs over fences.

10. Observe game laws and gun safety rules. Don't fire shotguns in the direction of livestock or buildings, even though they may be out of range.

11. Keep guns unloaded and pointed in a safe direction when near people and livestock. Firing guns near farm animals tends to frighten them.

12. Be careful with matches and cigarettes.

13. Don't be a litterbug.

14. Do not "wipe out" a farmer's wild game supply leaving nothing for the farmer.

Common sense and a little courtesy will go a long way toward creating a good relationship between farmers and hunters, Hogsett says.

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EXCLUSIVE

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Small Calves Do Well On
Once-A-Day Feed Schedule

Feeding young dairy calves once a day rather than twice a day can reduce labor requirements for raising herd replacements. And, the calves grow just as well, reports K.E. Harshbarger, University of Illinois dairy scientist.

Based on preliminary results of feeding comparisons Harshbarger says the growth and development of Holstein heifers fed once a day after receiving colostrum milk equalled the performance of calves fed twice a day. During the four-week period before weaning, weight gains were similar regardless of feeding frequency, Harshbarger found.

He offers these suggestions for dairymen who want to begin feeding their young calves once a day:

--Feed either whole milk or milk replacer mixed with warm water at the rate of 8 or 10 percent of the calf's birth weight until the calf is four or five weeks old.

--Wean calves abruptly after four weeks, but smooth the transition to dry feed by feeding about half as much milk in the fifth week.

--Feed a palatable, highly-nutritious grain starter free choice until the calf is eating five or six pounds per day. Limit starter at this level to encourage greater roughage consumption. The starter should contain 16 to 18 percent crude protein. Starters usually contain corn, oats, soybean meal, molasses, and mineral, vitamin and antibiotic supplements.

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--Feed high quality legume or legume-grass hay free choice. Calves eat very little hay the first four weeks, but intake increases markedly after you restrict the amount of starter feed they get.

--Protect small calves from cross drafts and inclement weather. Healthy calves have better appetites. A clean, well-ventilated pen will do the trick.

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RC:bam
10/23/68

Safe Hunting Tips
Offered To Hunters

Fall and hunting go together, but unfortunately, so do hunting and accidents, cautions O.L. Hogsett, University of Illinois Extension safety specialist.

Avoid the likelihood of a hunting accident. Follow these suggested rules of the woods:

--Wear bright, blaze-orange hat and vest. They are easily noticed by other hunters.

--Lay your gun down unloaded when crossing a fence alone. Cross the fence, then retrieve the firearm--stock first.

--Give the gun to a companion when crossing the fence with friends. One person holds both guns, muzzle up, while the other crosses.

--Unload your gun or open the action before crossing or jumping a ditch or small stream.

--Keep the muzzle pointed forward, either up or down, not horizontal, while carrying a gun.

--Check the hunting area thoroughly for other people, houses and livestock.

--Keep the gun barrel free of snow, mud and other restrictions.

--Know your companions' locations at all times.

--Be sure it's game before you aim.

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Which Tractor To Buy--
Gasoline Or Diesel?

Farmers contemplating a new tractor purchase and trying to decide whether it should be gasoline or diesel will find these suggestions from J.A. Weber, University of Illinois agricultural engineer, helpful:

On the basis of performance, diesel and gasoline tractors of the same make and model can handle farm work equally well. Horsepower and lugging ability of the two are about the same if both tractors are kept in good mechanical condition.

A diesel tractor uses less fuel per hour, and diesel fuel generally costs less per gallon. However, Weber adds, because of the greater initial investment in the diesel tractor, fuel savings must be balanced against higher fixed costs and somewhat higher repair bills.

Diesel engines require fewer overhauls than gasoline engines, but diesel overhauls often require more skill and specialized equipment.

Before deciding which fuel-type to buy, decide what your horsepower requirements are. Then, begin comparing tractors within that power range. Compare diesel and gasoline tractors three ways:

--Difference in purchase price of the two tractors, including any additional cost for diesel fuel storage.

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--Difference in price per gallon between the two fuels. Consider all rebates and tax refunds, too.

--Number of hours the tractor will operate per year. Most farmers overestimate the hours a tractor works every year. Studies show the average farmer in central Illinois using his tractor slightly over 500 hours per year. Only one farmer in 10 uses his tractor more than 800 hours.

Generally speaking, Weber's studies show that you can't afford small diesel tractors in the 40 PTO horsepower range unless you use them at least 600 hours a year and pay no more tha $500 over the cost of a comparable gasoline tractor.

Medium-sized diesel tractors--those in the 65 PTO horsepower range--have economic advantages over gasoline tractors once you work them 500 to 600 hours. This is true as long as the price tag isn't over $400 more than that on a similar gasoline tractor. If used 800 hours, you can justify spending an extra $600 to get the diesel.

When you start talking about tractors in the 90 PTO horsepower class, diesel engines have a definite economic advantage over gasoline, especially if you can keep them busy.

Keep a big diesel tractor working 600 hours a year and you can afford to pay $800 more for it; $1,000 more if you can buy diesel fuel for two cents less a gallon than gasoline. If the tractor will work 800 or 1,000 hours, you come out ahead with diesel, regardless of the fuel cost.

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RC:bam
11/7/68

Morrow Plots Grow
First Soybean Crop

You can't teach an old dog new tricks, but you can get a new trick out of an old experimental field once in awhile.

For example, the University of Illinois' Morrow Plots grew its first crop of soybeans since established in 1876.

And here's how the yield results stacked up: The uninoculated plots that received no soil treatment produced 35.9 bushels per acre. Inoculating the untreated plots boosted yields 3 bushels per acre.

Yields on four plots--each receiving different soil treatments--were all about the same, whether inoculated or not.

On plot 4-SC, the pH is kept at 6.0. Three tons of manure are applied each year the plot is in corn. And either rock or bone phosphorus has been applied regularly since 1904. Yields were 49.9 bushels per acre and 50.4 bushels where the seed was inoculated.

Plot 4-NB receives lime and 200 pounds of nitrogen on corn. The P_1 test is kept at 40 to 50 and the potassium level has been maintained at 240 to 300 since 1954. This plot yielded 50 bushels per acre. Inoculated seed grown on the plot produced 48.7 bushels.

Plot 4-SB received the same treatment as 4-NB plus phosphorus applications. Uninoculated seed yielded 49.9 bushels per acre while inoculated seed yielded 52.6 bushels.

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Plot 4-SA has received manure, lime and phosphorus since 1904 and high levels of nitrogen, phosphorus and potassium since 1967. Treatments have included 300 pounds of nitrogen applied for corn. The P_1 test has been kept at 125 to 175 and the potassium test has been kept at 400 to 500.

Yields on plot 4-SA were 51.1 where uninoculated seed was used and 48.4 where seed was inoculated.

DD:bam
11/7/68

Hogmen Should Watch
For "Bloody Scours"

Swine producers should guard against vibrionic dysentery, commonly called bloody scours, says University of Illinois Extension Veterinarian Dr. H.N. Becker.

Becker reports that the disease has occurred in several Illinois herds this fall.

Although prompt treatment usually prevents a large death loss, vibrionic dysentery can cause serious economic losses. Infected animals go off feed and lose weight. Feeder pigs may be set back a month to six weeks. Some animals never fully recover and must be sold at less than market weight.

Moreover, the disease can easily become a chronic and recurring problem. "A producer can treat his herd for a few days and apparently knock out the disease, only to have it back a few weeks later," Dr. Becker warns.

Young, rapidly growing pigs are most often affected. Frequently the disease is introduced into a herd by newly purchased animals, but older swine may serve as inapparent carriers.

Bloody diarrhea is the tip-off to vibrionic dysentery. Usually the disease appears suddenly and spreads rapidly. An entire herd may be affected almost at once.

"However, other diseases besides vibrionic dysentery virus can cause bloody diarrhea," Dr. Becker points out. "A farmer who suspects the disease should call his veterinarian immediately.

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"A veterinarian's prompt, accurate diagnosis and recommendations for treatment will save money in the long run," he concludes.

Good management is the best defense against vibrionic dysentery. Although veterinarians are still trying to solve some of the riddles of how the disease occurs and spreads, it seems to be most often connected with crowded, filthy living conditions.

To avoid trouble with vibrionic dysentery, Dr. Becker recommends that farmers avoid crowding pigs, provide well-ventilated sanitary quarters, and protect pigs against internal parasites and other stresses. Quarantining new hogs for at least 30 days will also help keep a herd free of the disease.

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DD:bam
11/7/68

EXCLUSIVE

RELEASES FOR EXTENSION ADVISERS
FROM EXTENSION EDITORS . . . 330 MUMFORD HALL . . . URBANA

Note to advisers: If F.J. Reiss will be holding a meeting on cash leases in your county this winter, don't use this release now. Use it as a follow-up release to his presentation.

Net Farm Rent Down
$1 To $4 Per Acre

New farm rent in 1967 was down from $1 to $4 per acre and landowners weren't the only ones to feel the economic squeeze, reports F.J. Reiss, University of Illinois land economist.

Returns to tenants for their labor and management contributions were $3,000 to $4,000 less than in 1966. These figures were taken from financial summaries of farm business records kept by farmers cooperating in 1967 with the U. of I.

"These low returns raise questions about fixed cash rents," Reiss said. "This is particularly true for cash leases with gross rents of up to $50 or more per acre."

The land economist outlined three general ways landlords and tenants can adjust gross rent under cash leases from year to year:

1. Adjust gross cash rent according to the amount of change in a selected index number such as the index of farmland prices, or the index of prices received by farmers for grain crops, for all crops or for all commodities.

2. Use a standing rent expressed in bushels of corn or soybeans, pounds of pork or milk. Calculate the current dollar equivalent of the quantity specified.

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3. Use a standing rent, but adjust the rent according to county average crop yields before calculating the dollar equivalent.

Reiss reported that the U. of I. has prepared a printed cash-lease form showing the three methods of calculating cash rents.

Tenants and landlords should share all variable costs such as fertilizer, seed and insecticides in the same way they share the crop, Reiss said. This will give both parties equal incentive to use optimum amounts of inputs.

The economist said that if landlords and tenants produce enough corn to justify investing in on-farm drying and storage facilities, the two parties should split costs in this fashion:

--Tenant furnishes all harvesting, hauling and handling equipment; pays for all fuel in harvesting and hauling; and does the work involved.

--Landlord furnishes shelled corn storage, drying equipment, aerator fans, wiring and moisture tester.

--Both parties share costs of fuel and electricity used in drying as the crop is shared.

Where on-farm storage is not feasible, both parties will have to make exceptions, Reiss noted. In such cases, each party pays for drying his own share of the grain with the landlord often making a payment of two to three cents per bushel to the tenant in lieu of a shelling charge.

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(Your name), (county name) county Extension adviser, has several bulletins and circulars on farm leasing as well as printed lease forms available to tenants and landlords. The office is located at (address, town, zip).

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JTS:bam
11/14/68

NOTE TO ADVISERS: Bulletin named in suggested column copy below was published in 1964. Several thousand copies were sent at that time to veterinarians, hospitals, nurses, etc. The supply is still ample and the authors would like to move some copies off the shelves and into the hands of people who may find them useful. DO YOU HAVE AN OFFICE COPY? IF NOT, YOU CAN GET ONE OR MORE FOR FREE BY WRITING IN FOR IT. If you'd like to plug it in your column, here's suggested copy:

Health Laws

I've been reminded recently that the University of Illinois has an excellent bulletin on "Illinois Laws Affecting Human and Animal Health."

Portions of the bulletin may be only of casual interest to the average person, but should be most valuable as a reference book for veterinarians, doctors, nurses and others who work with state, county or local agencies with a more direct interest in what these laws require.

You may already have a copy from initial distribution made when the bulletin was published in 1964. But if you don't, copies (no charge) may be requested from College of Veterinary Medicine, University of Illinois, Urbana, Illinois 61801. Or if you prefer, send your requests to the county extension office and we'll forward them to Urbana.

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GB:bam
11/14/68

EXCLUSIVE

RELEASES FOR EXTENSION ADVISERS
FROM EXTENSION EDITORS . . . 330 MUMFORD HALL . . . URBANA

Plan Year-End Strategy
To Save Tax Dollars

With today's trend toward bigger farms and higher costs, tax management deserves top priority in your farm business, especially as tax-filing time approaches.

You should act now to cash in on tax savings, advises F.M. Sims, University of Illinois Extension farm management specialist.

Most big tax savings are made before you close your 1968 farm record book. After December 31, you can do little except pay the taxes you owe.

To avoid paying unnecessary taxes, add all your 1968 farm income and expenses. The figure depreciation, investment credit, personal exemptions and deductions.

If your taxable income is considerably more or less than last year's, look for ways to level it, he suggests.

Because of graduated income tax rates, personal deductions and allowances, a tax burden will be lightest over the years if income is leveled as much as possible from year to year, Sims says.

Many farmers now use electronic data processing (EDP). Most of these electronic systems provide a year-to-date income and expense summary especially designed for year-end tax planning. EDP is an excellent tool to use in leveling income, he notes.

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Plan Year-End Strategy - 2

If the estimate of your 1968 income tax is higher than last year's, or the last few years', there are several legal steps you can take to pay less tax and avoid situations that could mean more tax. Sims lists these suggestions:

1. Buy and take delivery on some of the farm supplies you will need in 1969, such as seed, chemicals, baler twine, paint, oil and grease.

2. If you cannot take delivery of the supplies, then purchase and pay for them by Dec. 31, 1968, with delivery in 1969. Be sure, however, there is a binding, written contract signed by you and the seller. The contract should specify quantity, quality or grade, definite price or criteria for establishing the price at the time of delivery and a time of delivery.

You should be able to show a good business purpose for making advanced payment, such as an early order discount or preferential treatment or insurance against product shortage in 1969. The contract should be stated as an unconditional obligation to deliver the item on a non-refundable basis.

3. Wait until 1969 to sell grain or livestock. Before holding livestock, figure the tax you will save by not having livestock sales in this year's income. Estimate whether the sale price per pound for the stock may be higher or lower by holding. Remember the per-pound cost of gain is higher at heavier weights, thus reducing the profit margin.

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If you defer income to 1969 from grain delivered to the elevator in 1968, secure a written contract duly signed by you and the elevator operator. The contract should show quantity and price, stating that the money is not to be paid at delivery, that you cannot collect and that the elevator cannot pay you until a specified 1969 date.

4. Buy machinery or equipment you need and take the "fast write-off" or additional 20 percent first-year depreciation, or both. A fast write-off reduces the depreciation you can claim in later years, however.

5. If someone owes you money for labor or services, delay collection until 1969.

6. Defer reporting income from crop insurance if you intend to replace grain damaged by hail, flood or other "Acts of God." If you received crop or livestock insurance proceeds this year, attach a statement to your tax return stating that you wish to defer the income to 1969. Include with the statement a description of the property destroyed and the dollar amount received.

If insurance proceeds are reinvested in the same crop as that destroyed, the insurance income will not be taxed until the replacement property is sold. However, if the grain is fed, then no tax is assessed on the grain--only on the livestock or livestock products sold.

If a replacement crop is not acquired within the statutory time period, the income will be taxed for the year in which the proceeds were received.

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7. Take investment credit on qualified purchases. Mandatory investment credit provides a direct reduction from the income tax you owe.

8. Consider "doubling up" certain charitable contributions in 1968. If you pledged $1,000 to a church building program to be paid in equal installments in 1968 and 1969, pay both pledges this year. Then itemize your personal deductions for 1968 and use the 10-percent standard deduction or minimum standard deduction for 1969.

If your taxable income this year was lower than last year or an average of several years, Sims suggests you try to increase your 1968 income and postpone some deductible expenses until after Jan. 1, 1969, if possible. Here are a few ways to raise taxable income:

1. Sell additional grain or livestock in 1968. Selling livestock in December may be desirable from a tax standpoint, but the total price may be low as livestock will be lighter in weight.

2. Sell any capital items no longer needed in the farm business.

3. Use your charge account and pay for purchases after January 1 if you file on a cash basis.

4. Cull your breeding herd and sell the low producers. This enables you to pay tax on the livestock sale, and it may well increase your total farm profit as you weed out culls.

When working out year-end tax strategies, keep in mind your tax deductions for next year, Sims warns.

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JTS:bam
11/21/68

Omissions Costly When
Reporting Income Taxes

As tax-planning time for 1968 approaches, taxpayers should remember that Uncle Sam wants only the tax dollars due him--no more.

Keeping complete and accurate records is the best way to avoid unnecessary tax payments, reports F.M. Sims, University of Illinois Extension farm management specialist.

Failing to deduct a legally deductible small item makes the item cost more. For example, if a farmer fails to deduct a $10 operating expense, the actual cost jumps to $12 plus the surtax charge if the farmer is in the 20-percent tax bracket, Sims explains.

Omissions of income on tax forms can also be costly. With more tax records being taped for automatic data processing (ADP), more returns will be checked for accuracy, he points out. Errors may bring an audit of a tax return. Additional tax plus interest may then be assessed on omitted income.

Farmers should record the cost of small purchases. One way of keeping an accurate record is to use charge accounts or credit cards at stores where small repairs are made or supplies are regularly purchased. Monthly billing statements then provide an itemized account of all purchases; and the small expense items will not be overlooked, he says.

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JTS:bam
11/21/68

Many Farm Expenses Legal
Deductible Tax Items

Most farmers recognize fertilizer, seed, gas, oil, chemicals, feed, wages and depreciation as deductible items on the farm schedule of their income tax forms.

But many farmers often overlook other business expenses when filing tax returns, reports F.M. Sims, University of Illinois Extension farm management specialist.

Wise tax management includes claiming all allowable deductions. On taxes figured from a table, a forgotten $10 deduction can mean paying additional tax dollars later, he explains. If a farmer is in the 30-percent tax range, every dollar he deducts saves him 30 cents plus the surtax assessment.

Here are a few deductible business expenses often overlooked:

--Farm and breed organization dues.

--Farm magazine subscriptions.

--Extension telephones in farm buildings and long-distance business telephone calls.

--Fees for record-keeping services, management help, tax consultants, attorneys and accountants.

--Expenses for exhibiting at fairs.

--Fringe benefits given to hired help.

--Supplies and tools, such as wrenches, grease gun and chains.

--Repair or cleanup after a casualty such as a tornado.

--Penalty charges for paying off a mortgage before its due date.

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--Office or office space in the home.

--Farm business advertising.

--Wages paid to children for reasonable services rendered.

--Safe-deposit box used in business.

--Farm record books, business postage and stationery.

This list is only a start, Sims says. A competent tax practitioner can help you decide and give you suggestions on which farm business and personal expense items are deductible on your farm income tax forms.

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JTS:bam
11/21/68

Form 4347 Prevents
Useless Tax Bite

Farmers and farm owners who split ASCS program payments now have a way of preventing an unnecessary tax bite, reports F.M. Sims, University of Illinois Extension farm management specialist.

As in years past, farm owners and managers must report their portion of the ASCS payment on Part I, Schedule F of Form 1040. In addition, they should fill out and attach to Form 1040, Form 4347 which releases them from paying tax on the portion they pass on to tenants or renters.

Suppose a farm owner receives a $700 program payment and, according to his lease arrangement, pays $300 to his tenant. The farm owner reports the $400 as earned income on his Schedule F and pays the tax. The tenant, then, treats his $300 as earned income on his Schedule F, Sims says.

County ASCS offices report to the Internal Revenue Service all cash payments made to farm owners and managers and farmers. The offices also report each payee's identifying number--either Social Security or employer identification number--as it appears on the payment draft, he explains.

Farm owners may obtain Form 4347 from their tax practitioner or IRS office.

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JTS:bam
11/21/68

Feeding The
Lactating Cow

With most Illinois dairy cows freshening in the next five months, J.G. Cash, University of Illinois Extension dairy specialist, finds this is a good time to review feeding recommendations for the lactating cow.

Cash divides the feeding program into three periods:

--Dry period.

--First month after freshening.

--Lactation from second month until dry period.

Dry cows should get all the roughage they'll eat and a grain mixture properly balanced for the roughage according to the cow's body condition.

Cash suggests feeding one-half pound of grain per day per 100 pounds of body weight until two weeks before the cow is due to calve. Then, increase the amount of grain fed to equal 1 to 1 1/2 pounds per day per 100 pounds of body weight. Continue to feed at this level through the third day after calving.

Starting on the fourth day after calving, increase grain as fast as the cow will take it until she is fed all she will eat. Some caution is called for so you don't throw the cow off feed. Try increasing daily rates of grain by one pound amounts, Cash advises.

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Feed all of the grain the cow will eat until four weeks after calving. Then, weigh the amount of milk the cow is producing and adjust the amount of grain fed.

Ayrshire, Holstein, Brown Swiss and Milking Shorthorn cows producing 80 pounds of milk or more per day should be fed grain according to appetite from then on. Feed those producing from 50 to 79 pounds of milk per day a pound of grain for each 2 1/2 pounds of milk produced.

Those producing from 30 to 49 pounds of milk per day should be fed a pound of grain for each three pounds of milk produced. Lower producers get one pound of grain for every four pounds of milk.

In the case of Guernseys and Jerseys, Cash recommends:

--Feed cows producing 50 pounds of milk or more per day according to appetite.

--Those producing 30 to 49 pounds milk per day get one pound of grain for every 2 1/2 pounds of milk produced.

--Feed low producers a pound of grain for every three pounds of milk.

From the second month of lactation until dry, weigh the milk at least once a month and adjust the amount of grain fed according to the above recommendations.

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With the program Cash has outlined, dairymen benefit four ways: They give each cow a dry period. Each cow is conditioned for calving. Following calving, each cow is on a challenge feeding program. And, by weighing the milk at monthly intervals and adjusting the amount of grain fed, a maximum amount of milk is obtained from each cow from a minimum amount of grain.

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RC:bam
11/21/68

EXCLUSIVE
RELEASES FOR EXTENSION ADVISERS
FROM EXTENSION EDITORS . . . 330 MUMFORD HALL . . . URBANA

Swine Testing Stations Report
Growthier And Trimmer Hogs

The records are in for the 583 pigs on test at the six Illinois Swine Test Stations. Their performance is indicative of the progress made by swine breeders in recent years.

G.R. Carlisle, University of Illinois Extension swine specialist, reports the following average figures for slaughter animals studied during the spring test period:

--1.72 pounds daily gain.

--305 pounds of feed per 100 pounds of gain.

--1.24 inches backfat.

--4.86 square inches loin eye.

--40.64 percent carcass in ham and loin.

Carlisle notes that this year's backfat measurement is nearly one-fourth inch trimmer than in 1956. Loin eyes this year were a full one square inch larger than they were 12 years ago.

Daily gain rates have changed little during the past five years. But, feed efficiency has improved 17 pounds per 100 pounds of gain in the same period.

Boar performance has also improved greatly since 1956. Carlisle makes these comparisons:

Average daily gain in 1956 was 1.76 pounds; 1968 daily gains were 1.98 pounds. Feed per 100 pounds of gain for boars in 1956 was 337 pounds; 1968 amounts averaged 267 pounds. Backfat thickness dropped from 1.37 inches 12 years ago to 0.95 inch this year.

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Gain and cut-out data were kept on 128 boars and 455 market animals this year. This marks the 13th year test stations have operated in Illinois.

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RC:bam
11/29/68

Prominent Producer Keynotes
UI Sheep Day Program

Joe Campbell, a Lebanon, Virginia, rancher whose progressive sheep management ways have brought him national attention through farm magazines, has been invited to address the University of Illinois Sheep Day audience on December 13, at Urbana.

His appearance ties in with the afternoon program on intensified sheep production. Campbell has his 500-ewe flock on an accelerated lambing program, puts lambs and ewes on slotted floors four or five days after lambing, and weans lambs at 30 pounds. He finishes some lambs on expanded metal floors; some on pasture.

Other topics for discussion include:

--Potential of total confinement of ewes and lambs.

--Parasite, disease and sanitation problems with intensified production.

--Potential of synchronization of estrus cycles and accelerated lambing.

An exercise in live lamb judging and carcass evaluation is planned for the morning session, beginning at 10 a.m. in the Stock Pavilion. The audience will size up lambs from a potential carcass standpoint. Later, the lambs will be slaughtered and carcass evaluation data mailed to Sheep Day registrants.

Gary Ricketts, U. of I. Extension sheep specialist, reports that the Sheep Farm and Metabolism Laboratory facilities can be visited from 8:30 a.m. until the morning program starts.

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RC:bam
11/29/68

EXCLUSIVE

RELEASES FOR EXTENSION ADVISERS
FROM EXTENSION EDITORS . . . 330 MUMFORD HALL . . . URBANA

NOTE TO ADVISERS: Here are your COMMUNICATION AIDS FOR PROMOTING SWINE SEMINARS

The attached materials should come in helpful as you promote the multi-county University of Illinois Swine Seminar nearest you.

Releases lend themselves to use either as copy for your newspaper column or as "promos" on your radio-TV service. Each provides a good buildup to the meeting, with a teaser lead.

You may plan on sending a reminder letter to the pork producers in the county. If so, we've included a couple of suggested letters. Localize with any travel arrangements or other appropriate information.

NOTE TO ADVISERS: - 2

Date	Town	Location	Counties Involved
Jan. 13	Effingham	Ramada Inn	Shelby, Fayette, Effingham, Marion, Clay
Jan. 14	Belleville	Augustines	Randolph, Monroe, St. Clair, Washington
Jan. 15	West Vienna	Bob White Restaurant	Pulaski, Alexander, Pope, Hardin, Johnson, Massac, Union
Jan. 16	Robinson	Lincoln Theater	Crawford, Clark, Cumberland, Jasper, Richland, Lawrence
Jan. 21	Macomb	4-H Center	McDonough, Hancock, Fulton
Jan. 22	Moline	John Deere Center	Rock Island, Stark, Henry
Jan. 23	Sterling	Emerald Hills Country Club	Whiteside, Ogle, Lee
Jan. 27	Springfield	Heritage House Restaurant	Logan, Mason, Menard, Christian, Sangamon
Jan. 28	Rantoul	Redwood Inn	Champaign, Ford, Vermilion, Iroquois, Piatt
Jan. 30	Quincy	Casino Starlight Terrace Room	Adams, Schuyler, Brown, Pike
Jan. 31	Jacksonville	Blackhawk Restaurant	Morgan, Scott, Cass
Feb. 19	Carrollton	Farm Bureau Building	Greene, Jersey, Calhoun

RC:km
12/10/68

Amino Acids Topic For
Illinois Swine Seminar

"We'll be hearing a lot more about amino acids in swine rations in the year ahead," predicts G.R. Carlisle, University of Illinois Extension swine specialist. Some feed companies are already beginning to talk this in their advertising. The development of modified-protein corn has also prompted this.

Carlisle also forsees some changes coming in the recommendations for levels of minerals fed in finishing rations.

He'll be reporting on these trends in more detail during his appearance at the University of Illinois Swine Seminar scheduled for _____ in _____ at the
(date) (town)
_____. Registration for the Swine Seminar begins at
(location)
9:30 a.m.

This is one of twelve multi-county meetings being conducted by the Cooperative Extension Service to bring swine producers up-to-date on subjects dealing with animal science, agricultural engineering, agricultural economics, and veterinary medicine. Specialists from each area are on the Swine Seminar program.

Swine producers from _____ counties have been invited to the _____ meeting.
(town)

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RC:km
12/10/68

Buildings And Equipment
Illinois Swine Seminar Topic

Each year brings a new crop of ideas on swine housing and waste handling. Art Muehling, University of Illinois Extension agricultural engineer, plans to review the latest thinking on housing and waste management during his appearance at the U. of I. Swine Seminar scheduled for _____ in
(date)

_____ at the _____.
(town) (location)

If remodeling or expansion is in your future, you'll want to hear Muehling's comments about confinement housing, slotted floors, choice of insulation materials, and ventilation considerations.

Registration for the Swine Seminar begins at 9:30 a.m.

This is one of twelve multi-county meetings being conducted by the Cooperative Extension Service to bring swine producers up-to-date on subjects dealing with animal science, agricultural engineering, agricultural economics, and veterinary medicine. Specialists from each of these areas are on the program.

Swine producers from _____counties have been invited to the _____ meeting.
(town)

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RC:km
12/10/68

1969 Hog Outlook Told At
Illinois Swine Seminar

Is the party over for swine producers who have been riding a crest of good times in recent years? Al Mueller, University of Illinois Extension farm management specialist, plans to talk about several aspects of the future during his appearance at the University of Illinois Swine Seminar scheduled for _____ in _____ at the _____.
(date) (town) (location)

Mueller has indicated to us that he will report on current demands for pork products and marketing trends. By assessing recent adjustments in production and marketing, he has some idea of where we may be headed from here. We're sure you'll want to hear him.

Registration for the Swine Seminar begins at 9:30 a.m.

This Swine Seminar is one of twelve multi-county meetings conducted by the Cooperative Extension Service to bring swine producers up-to-date on subjects dealing with animal science, agricultural engineering, agricultural economics, and veterinary medicine. Specialists from each of these areas are on the program.

Swine producers from _____ counties have been invited to the _____ meeting.
(town)

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RC:km
12/10/68

Hog Cholera Eradication Program
Topic For Swine Seminar

"With some new regulations going into effect on January 1, we are getting quite a few questions about the Hog Cholera Eradication Program," reports H. Neil Becker, D.V.M., University of Illinois Extension veterinarian.

Dr. Becker plans to review the latest regulations during his appearance at the U. of I. Swine Seminar scheduled for _____ (date) in _____ (town) at the _____ (location).

You'll also be interested in his report on research coming out of the $66,000 spent annually by the College of Veterinary Medicine to study swine diseases.

Registration for the Swine Seminar begins at 9:30 a.m. This is one of twelve multi-county meetings being conducted by the Cooperative Extension Service to bring swine producers up-to-date on subjects dealing with animal science, agricultural engineering, agricultural economics, and veterinary medicine. Specialists from each area are on the Swine Seminar program.

Swine producers from _____counties have been invited to the _____ (town) meeting.

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RC:km
12/10/68

(Suggested direct mail letter for promoting U. of I. Swine Seminar)

Mr. Pork Producer:

Reserve _____ (date).

That's the day U. of I. Extension specialists will present a Swine Seminar in _____ (town) at the _____ (location).

We've been in touch with the specialists. Here's the program they have planned:

--Current Research in Nutrition and Management.

--Buildings and Equipment for Modern Pork Production.

--Hog Cholera Eradication and Swine Disease Research in Illinois.

--Economics of Pork Production.

Animal scientists see a swing in emphasis from protein levels in swine rations to more thought on getting the best combinations and amounts of amino acids into a hog's diet. Their recommendations on the level of minerals to feed in finishing ratios are changing, too. They'll have more to say on these topics at the Seminar.

This will be a good opportunity for you to get a better understanding of the latest State and National Hog Cholera Eradication Programs in effect.

For additional information about the Swine Seminar, call me at _____ (phone). Hope to see you there.

Sincerely,

Suggested direct mail letter for
Promoting U. of I. Swine Seminar

Mr. Pork Producer.

How well do you understand the latest provisions of National and State Hog Cholera Eradication Programs?

Waste disposal getting you down?

Wondering what the outlook for swine production is for 1969?

Puzzled by talk about amino acids instead of protein levels in swine rations?

Join other pork producers from neighboring counties at a University of Illinois Swine Seminar scheduled for _____ in _____ at the
(date) (town)
_____. Registration begins at 9:30 a.m. The multi-county meeting
(location)
features U. of I. Extension specialists reporting the latest ideas and research as they relate to your swine enterprise.

We talked to some of the program speakers earlier this winter. We thought you'd be interested in what they'll be talking about:

Animal scientists--You've probably been reading about modified-protein corn recently. What is really being modified is the level of various amino acids, such as lysine and tryptophan. We may see feed companies talking more about amino acids, so now's the time to learn all you can.

Agricultural engineers--Waste handling and confinement housing topics lend themselves to considerable discussion about slotted floors, insulation materials and ventilation equipment. If remodeling or expansion is in your future, don't miss this session.

Agricultural economics--Hogs have been in on the "good years" end of the cycle for several years. Is the party over? How is the past year's corn crop affecting 1969 outlook for hog producers? What clues are in the latest pig crop reports?

Veterinary Medicine--How do the new regulations on Hog Cholera Eradication affect the commercial and purebred pork producer? You'll also be interested in some of the research coming out of the $66,000 spent annually by the College of Veterinary Medicine to study swine diseases.

We think you'll find the Swine Seminar informative and loaded with ideas you can apply to your own situation when you return home.

See you _____.
(date)

Sincerely,

Extension Advisers, Agriculture

Enclosed is the promotion material for the area Crop Production/Protection Days. Included are several news releases and column items. They are marked at the top to indicate the meeting they should be used for. The column items can also be used as radio copy without extensive re-writing.

You will also find four copies of a suggested direct mail piece. One-third of the page has been left blank beneath the mailer, so you can use that space any way you want. Since these are area meetings, you may want to use a brief map there to help out-of-county visitors find the meeting place. Or you can include information that applies to your meeting only.

Unless you're including information in the letter that applies to the people in your county only, there's no reason why one adviser couldn't reproduce the letter and distribute it to other advisers who will have people attending.

If you have further questions, contact Del Dahl.

Sincerely,

Hadley Read

Hadley Read
Assistant Director
Head, Agricultural Communications

Crop Production-Protection Meetings
Set For _____
(date)

The University of Illinois Cooperative Extension Service will wrap-up all crop production information for _____-area farmers in two one-day meetings.
(main town)

At the Crop Production Day, _____, you'll get the latest information on fertilizers, tillage, varieties and crop management. You'll want to hear the discussion on what happened to corn yields in 1968 and results of the state micronutrient survey.
(date)

At the Crop Protection Day, _____, you'll learn how to reduce your crop losses from insects, weeds and diseases.

The meetings will be held at _____, _____, and is for farmers and agribusinessmen from _____, _____, _____ and _____ other nearby counties.
(place) (town)

The programs will start at _____ both days.
(time)

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12/10/68

Crop Production Day Program
Packed With Info

The _____-area Crop Production Day will give
(main town)

a close look at many phases of crop production, says _____
(county)

County Extension Adviser _____.
(name)

The meeting is scheduled for _____ at
(date)

_____, _____.
(place) (town)

One of the highlights will be a discussion of what happened to corn yields in 1968 and why it happened. University of Illinois staff members will discuss fall nitrogen applications, thesoil-plant micronutrient survey, fertilizer rates and how often you need to apply phosphorus and potassium.

Matching corn planting dates with soil temperatures, research on upright leaf angles to increase light efficiency and successes, and failures with double cropping will be discussed. _____ says you'll also get the latest information on TIBA and soybean varieties.

Discussing tillage practices, the Extension staff members will compare tillage systems, including fall tillage, chiseling in place of plowing conservation tillage and fertilizer placement in a chisel system.

The program will also include a run-down on crop varieties and a look at the status of hybrid wheat, soybeans and alfalfa. Brands and blends of crop varieties will also be discussed.

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CROP PRODUCTION
COLUMN ITEMS

Narrow Rows

Research continues to show a yield increase resulting from narrow-row corn and soybeans. At the Crop Production Day _____ (time), _____ (date) at _____ (place) in _____ (town), agronomists will have their latest suggestions if you're switching to narrow rows. They'll relate row widths to population, variety, fertility and date of planting.

In all, they'll help you get the most from your switch to narrow rows.

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Fertilizing Corn

When deciding how much fertilizer to use on your corn check these points:

--Know the supplying power of your soil type.

--Use soil tests to determine the level of nutrients built up in your soil.

--Adjust the nitrogen rate not only for legume crops and manure applications, but also for date of planting and plant population.

University agronomists will have the complete story on fertilizing corn at the Area Crop Production Day, _____ (date) at _____ (place), _____ (town). And they'll help you decide how high is high enough when considering rates of phosphorus and potassium. They'll also discuss fertilizing every year versus extra-high rates to last two or three years.

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Column Items - 2

Tillage Systems

Chiseling and other tillage systems are getting a lot of attention. Can you reduce your spring work load, lower your crop production costs and increase your crop yields by changing tillage systems? If you're considering switching to a reduced tillage system, there are some precautions you need to take.

At the _____-area Crop Production Day, _____ (date), _____ (place), _____ (town), you'll hear the advantages and disadvantages of each of the reduced tillage systems. And University of Illinois agronomists will help you compare costs, yields and how best to adapt each system.

Plan to attend the _____-area Crop Production Day starting at _____ (time), _____ (date).

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CROP PROTECTION DAY

Crop Protection Day Program
Covers Weed, Insect And Disease Control

The best fertilizer program, tillage system and planting procedures can result in disappointing crop yields if you fail to control weeds, insects or diseases.

That's why the University of Illinois Cooperative Extension Service is holding the _____ (main town) -area Crop Protection Day _____ (date) at _____ (place) in _____ (town). The meeting starts at _____.

Agronomists will give their 1969 herbicide recommendations for weed control, suggesting ways you can match herbicides to your weed problem and soil type. And they'll point out ways to avoid herbicide injury.

Discussing insect problems likely to occur in 1969, entomologists will suggest ways to recognize the pests and the damage they cause, as well as outlining control programs to prevent crop losses.

Corn rootworms, corn seed beetles, corn borer, corn leaf aphids, alfalfa weevils and green cloverworms are a few of the insects the entomologists will discuss.

The U. of I. plant pathologists will give a rundown of disease problems in field crops. And they'll suggest control methods based on field and laboratory experiments.

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CROP PROTECTION DAY

Expect Insect Population Increase In 1969

Corn rootworms, corn seed beetles, corn borer, corn leaf aphids, alfalfa weevils and green cloverworms are just a few of the insects expected to pick the pockets of Illinois farmers during the summer of 1969.

Recognizing these insects and knowing how to control them will be the topics at the Crop Protection Day School scheduled for _____ at _____ in _____ Illinois.
(date) (place) (town)

This is an area meeting involving _____, _____,
(other counties)

and _____ counties. There is no charge for the meeting.

Corn rootworms are more abundant than ever before and 1969 could be a record year. Corn borer populations for the state averaged over 220 borers per 100 stalks of corn last fall--the highest since the winter of 1955-1956.

Corn leaf aphids and alfalfa weevil are also on the increase and the green cloverworm in soybeans is always a threat.

These are just a few of the insects that will give Illinois farmers a headache in 1969. Learn how to identify and control them to keep crop profits high.

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CROP PROTECTION DAY

Seed Beetles--
A New Headache For Farmers

Corn seed beetles eat the seed and chew off the sprout during germination. During the past season the beetles were widespread. Neither soil nor seed treatment of aldrin, dieldrin, chlordane, heptachlor or lindane controlled them.

Seed corn maggots hollow out the corn seed. They work hand-in-hand with the beetles and were found to be resistant to the same insecticides in at least two instances.

Seed insects reduce plant stands from a few hundred plants per acre in some fields to as many as several thousand plants per acre in other fields. Last spring most farmers were unaware of the damages caused by these insects. Farmers blamed their poor stands on the cool, wet weather occurring in early- to mid-May. Actually, seed insects were the major cause in many fields.

Farmers will need to use seed or soil treatments of an organic phosphate insecticide in 1969 if they are to avoid further damage from corn seed insects. A discussion of the suggested treatment for control of these insects will be presented at the Crop Protection Day scheduled for _____ at
(time and date)

_____ in _____, Illinois.
(place) (town)

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CROP PROTECTION
COLUMN ITEMS

Alfalfa Weevil

The alfalfa weevil has now spread throughout Illinois. This spring it is expected to cause damage in most alfalfa fields south of a line from Watseka to Hardin, Illinois. Farmers who want to continue to produce top-yielding good-quality alfalfa must recognize the alfalfa weevil and what its damage does and must know when and how to control outbreaks.

The Crop Protection Day is a good place to learn what alfalfa weevils look like. And you'll learn the latest control methods too. The meeting will start at _____ (time), _____ (day), _____ (date) at the _____ (place) in _____ (town), Illinois.

* * * *

Green Cloverworm

The green cloverworm outbreak in soybeans during August, 1968, caught many farmers unaware. This pale-green worm with the white stripes may continue to be a problem to soybean producers. When abundant, the worms can quickly defoliate an entire field and result in low yields.

Soybean producers should be on the lookout for the insect in 1969.

The Crop Protection Day is a good place to learn what green cloverworms look like. And you'll learn the latest control methods too. The meeting will start at _____ (time), _____ (day), _____ (date) at the _____ (place) in _____ (town), Illinois.

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Corn Leaf Aphids

During the last 10 years the corn leaf aphid problem has grown more severe. No one knows why the aphid population has increased. The increased use of nitrogen, higher plant populations and greater use of single cross varieties have been causes suggested.

During the past summer, aphid populations were heavier than ever before, especially in central and north-central Illinois. Aphids cause barrenness in plants and shrivelled and shrunken ears. Populations build up suddenly during the late-whorl to the pollinating period. It is important to recognize potentially serious populations early and apply control measures before damage has occurred.

You can learn how to spot a corn leaf aphid problem--and how to control them--at the Crop Protection Day, _____ (day), _____ (date), at the _____ (place) in _____ (town). The meeting starts at _____ (time).

Contact your County Extension Adviser.

* * * *

Weed Control

The Crop Protection Day program _____ (date) will bring you the University of Illinois' latest thinking on weed control. You'll hear how to select the best herbicide for your weed problem, and you'll also hear how to match the herbicides you use with your soil type.

Don't miss the Crop Protection Day at _____ (place) in _____ (town), starting at _____ (time).

EXCLUSIVE

RELEASES FOR EXTENSION ADVISERS
FROM EXTENSION EDITORS . . . 330 MUMFORD HALL . . . URBANA

Give Ventilating System
Winter Tune-up

Proper ventilation in enclosed livestock buildings during the winter is crucial. Without it, excess moisture stemming from condensation and animal vapor can lead to disease problems, extra labor and rapid deterioration of the building.

That's why Don Jedele, University of Illinois Extension agricultural engineer, passes along the following suggestions for making sure your present ventilating system is working at peak efficiency on the cold days ahead.

--Clean fan blades. The cubic feet of air per minute (cfm) ratings on fans are based on clean blades. Dirt or dust on the blades cut a fan's air-moving efficiency considerably.

--Oil motors. Not all motors operating fans require periodic oiling. Check your motor. If there is a place to add oil, do it.

--Check louvers to see that they open and close freely.

--Replace drive belts if wear is visible.

--Check inlets. Can air get in through inlets, or are they obstructed or plugged?

--Check controls. Thermostats and timers are fragile. Accumulations of dust or corrosion can lead to malfunctions.

--Check space heater. If you have to rely on supplemental heaters to warm air entering the building through the ventilation system, you'll want to have these units ready to go.

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Feeder Pig Demonstration
Underway At Benton

Feeder pigs look small and unpredictable as they trot around the sale ring. How can you be sure that they will amount to something?

G.R. Carlisle, University of Illinois Extension swine specialist, believes there are outward signs that give you some clues. To test his ideas, he has been working with the Benton Livestock Association to study the progress of two batches of pigs for 90 days.

Carlisle, along with several county Extension advisers from nearby counties, selected 12 pigs which were graded Number 1 feeder pigs. Similarly, another dozen pigs grading Number 2 were also sorted out. All of these pigs were chosen from feeder pigs brought in for the Association's December 12 sale.

The pen of No. 1 pigs averaged 68 pounds the first day of the 90-day feeding period. The No. 2 pigs averaged 64 pounds at the start.

Both pens of pigs were introduced to those attending the sale, and the demonstration plans were announced to the buyers present. Here's how Carlisle sized up each pen of pigs.

"When I look at these No. 1 pigs today, I see length and good muscling through the ham. They look like thrifty gainers. There's every reason to expect these pigs to grow up to be No. 1 or No. 2 market hogs," Carlisle told the crowd.

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"By comparison, these No. 2 feeder pigs, have a rougher haircoat and don't look as thrifty. They are by no means culls, though," Carlisle hastened to add. "Some No. 2 pigs are short, and lack muscling. Some have length, but lack the muscling. I'm guessing that these pigs will hold their own on gains until they weigh 160 to 170 pounds. Then, I think we can expect them to quit...ending up shorter and fatter than the No. 1 feeder pigs."

Both pens of pigs will receive the same 16 percent protein ration of ground mixed feed. Each pen consists of approximately half barrows and half gilts.

The pigs will be paraded at the January and February feeder pig sales, with gain data and feed efficiency reviewed to give buyers a progress report on the demonstration.

The pigs are expected to reach market weight by the March auction. "Just before the March sale," Carlisle explains, "we'll select representative pigs from each pen and slaughter them. This way, we can give the crowd representative carcass data on each pen and make comparisons on the type of carcasses resulting from the two grades of feeder pigs."

The Benton Livestock Association's feeder pig sales are held the second Thursday of each month. Those following the demonstration should mark January 9 and February 13 on their calendars, and plan to be on hand March 13 for the grand finale.

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NOTE TO ADVISERS: Below is suggested column copy (or adapt it for radio) for those of you whose clientele may be interested in attending agricultural law and pork production classes to be offered via the U. of I. UNIVEX NET in February. See complete details in release included in this packet. Your weeklies may be interested in running all or part of that release as a news item. The story already has been sent to dailies.

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UNIVEX NET Courses

I've been advised that the University of Illinois College of Agriculture will offer two advanced level courses in the _____ area, beginning in February.

If you're interested in learning more about swine selection, breeding, feeding, and marketing, or agricultural law, including farm tenancy, land tenure, and taxation, you may want to check this out.

But you'll have to move fast. Pre-registration forms must be sent in by January 10. The forms and complete details on registration procedures and requirements are available from

(ADD ONE OF NAMES APPEARING IMMEDIATELY BELOW)

Leon A. Mayer
56 Dixon National Bank Building
Dixon, Illinois 61021

(FOR PROSPECTIVE STUDENTS FROM ROCK ISLAND, FREEPORT AND MALTA AREAS)

Walter V. Brown
512 Iles Park Place
Sixth and Ash Streets
Springfield, Illinois 62703

(FOR PROSPECTIVE STUDENTS FROM SPRINGFIELD, DECATUR AND QUINCY AREAS)

These courses will be taught from Urbana via the University's UNIVEX NET-VERB system. The instructor transmits his lecture as well as charts, graphs or other visuals via telephone lines. Students can interrupt to ask questions or to discuss points with the instructor or with other students elsewhere on the NET. Sounds like an interesting way to go to school!

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SPECIAL NOTE TO ADVISERS IN FREEPORT AND MALTA AREAS:

You may also wish to note availability of introductory animal science course (see release) to be offered at Highland and Kishwaukee junior colleges.

EDITORS' NOTE: See attached list of dates and locations.

Short Course Set For
Land Improvement Contractors

Members of the Illinois Land Improvement Contractors Association, and others in that line of work, should keep in mind that a short course is scheduled for _____ at
(date)

_____ in the _____.
(town) (location)

The one-day school is sponsored jointly by the Illinois Land Improvement Contractors Association, the Soil Conservation Service and the Cooperative Extension Service.

Ralph C. Hay, University of Illinois Extension agricultural engineer, says this year's program includes discussion of the following topics:

--Engineering standards and specifications;

--Accident prevention in conservation construction;

--Mechanics of soil compaction;

--Drainage recommendations;

--Parallel tile outlet (PTO) terraces;

--Installation of drop spillways for erosion control.

A dinner sponsored by industry is scheduled to follow the day's course.

This marks the third year Land Contractor Short Courses have been held. A total of eleven such schools are scheduled in the state during January and February to introduce new techniques to land contractors as well as to reacquaint them with other general land formation practices.

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12/19/68

Attachment

Schedule For Land Improvement Contractor Short Courses

Date	Location
January 14	Pontiac, Farm Bureau Building
January 15	St. Charles, Cooperative Extension Office
January 21	Freeport, Cooperative Extension Office
January 22	Geneseo, American Legion Hall
January 23	Macomb, Union Building, Western Illinois University
February 4	Tremont, American Legion Hall
February 5	Jacksonville, Blackhawk Motel
February 6	Charleston, Federal Land Bank Building
February 11	Olney, Holiday Inn
February 12	Greenville, Community Building
February 13	Marion, City Library